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UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS

Service and Regulatory Announcements No. 144

OFFICIAL GRAIN STANDARDS

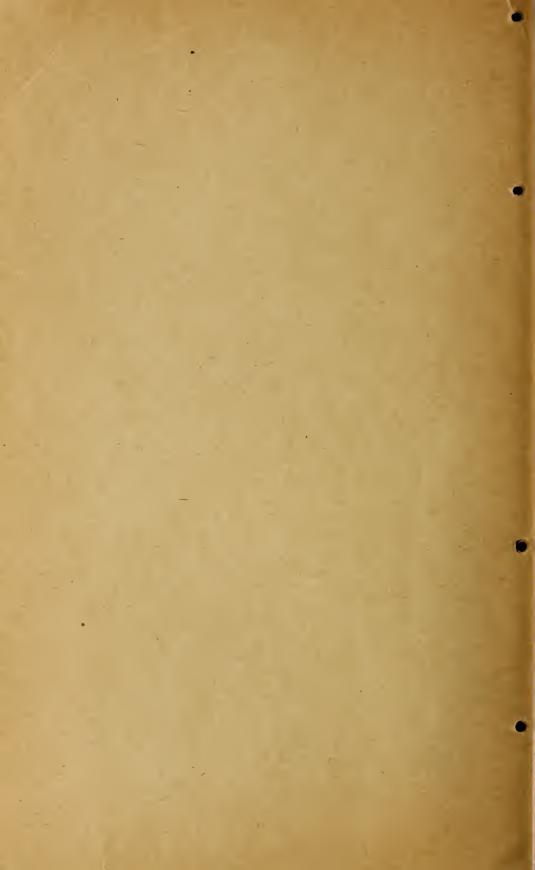
OF THE

UNITED STATES

FOR WHEAT, BARLEY, OATS, FEED OATS, MIXED FEED OATS, RYE, AND MIXED GRAIN, EFFECTIVE JULY 2, 1934; FOR FLAXSEED, EFFECTIVE AUGUST 1, 1934; AND FOR CORN AND GRAIN SORGHUMS, EFFECTIVE SEPTEMBER 1, 1934

Issued April 1934





United States Department of Agriculture

BUREAU OF AGRICULTURAL ECONOMICS

SERVICE AND REGULATORY ANNOUNCEMENTS NO. 144

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR WHEAT, BARLEY, OATS, FEED OATS, MIXED FEED OATS, RYE, AND MIXED GRAIN, EFFECTIVE JULY 2, 1934; FOR FLAXSEED, EFFECTIVE AUGUST 1, 1934; AND FOR CORN AND GRAIN SORGHUMS, EFFECTIVE SEPTEMBER 1, 1934

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BUREAU OF AGRICULTURAL ECONOMICS, Washington, D.C., March 30, 1934.

Hon. HENRY A. WALLACE, Secretary of Agriculture.

Sir: I have the honor to transmit, herewith, drafts of orders fixing, establishing, promulgating, and giving public notice of, the official grain standards of the ing, promulgating, and giving public notice of, the official grain standards of the United States for wheat, corn, oats, feed oats, mixed feed oats, rye, barley, grain sorghums, mixed grain, and flaxseed, under the United States Grain Standards Act of August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74). It is recommended that they be fixed, established, promulgated, and published as the official grain standards of the United States, pursuant to the authority conferred on you by said act, to be in force and effect on and after the date specified in each order, or until altered or modified hereafter by the Secretary of Agriculture.

The orders pertaining to wheat, corn, oats, feed oats, mixed feed oats, rye, grain sorghums, and barley supersede official grain standards of the United States now in effect for those grains. In the case of mixed grain and flaxseed. official

now in effect for those grains. In the case of mixed grain and flaxseed, official grain standards of the United States have not been previously established and

promulgated.

It is desirable that the new standards become effective as nearly as possible at the beginning of the new crop movement for each grain, and the orders have been so drafted that the standards for wheat, oats, feed oats, mixed feed oats, rye, barley, and mixed grain, will become effective on July 2, 1934; the standards for flaxseed on August 1, 1934; and the standards for corn and grain sorghums on September 1, 1934.

Very respectfully,

NILS A. OLSEN. Chief of Bureau.

Approved: Seth Thomas. Solicitor.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR WHEAT

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. Wallace, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for wheat, as hereinafter described, which shall become effective on the 2d day of July, 1934, and shall thereupon supersede the official grain standards of the United States for wheat, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR WHEAT 1

For the purposes of the official grain standards of the United States for wheat: Wheat.—Wheat shall be any grain which, before the removal of dockage, consists of 50 percent or more of wheat and not more than 10 percent of other consists of 50 percent or more of wheat and not more than 10 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act. The term wheat in these standards shall not include emmer, spelt, einkorn, Polish wheat, and poulard wheat.

Classes.—Wheat shall be divided into seven classes, as follows: Class I, Hard Red Spring Wheat; Class II, Durum Wheat; Class III, Red Durum Wheat; Class IV, Hard Red Winter Wheat; Class V, Soft Red Winter Wheat; Class VI, White Wheat; and Class VII Mixed Wheat.

Grades.—Wheat shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of its appropriate class or subclass, and according to the special grades when applicable.

class or subclass, and according to the special grades when applicable.

HARD RED SPRING WHEAT (CLASS I)

This class shall include all varieties of hard red spring wheat, and may include not more than 10 percent of wheats of other classes. This class shall be divided into three subclasses, as follows:

SUBCLASS (A) DARK NORTHERN SPRING

This subclass shall include wheat of the class Hard Red Spring Wheat consisting of 75 percent or more of dark, hard, and vitreous kernels. This subclass shall not include more than 10 percent of wheat of the variety Humpback.

SUBCLASS (B) NORTHERN SPRING

This subclass shall include wheat of the class Hard Red Spring Wheat consisting of more than 25 percent but less than 75 percent of dark, hard, and vitreous kernels. This subclass shall not include more than 10 percent of wheat of the variety Humpback.

SUBCLASS (C) RED SPRING

This subclass shall include wheat of the class Hard Red Spring Wheat consisting of not more than 25 percent of dark, hard, and vitreous kernels. This sub-class shall also include wheat of the class Hard Red Spring Wheat consisting of more than 10 percent of the variety Humpback.

¹ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

Class I, Hard Red Spring Wheat: Grade requirements for (a) Dark Northern Spring,
(b) Northern Spring, (c) Red Spring

		Maximum limits of—						
Grade No.	Mini- mum test weight	Damaged kernels (wheat and other grains)		Foreign material		Wheats of other classes		
	per bushel	Total	Heat- damaged	Total	Matter except other grains	Total	Durum and/or Red Durum	
1 Heavy 1	or Nor require or whice percent cinders comme which of grade r	thern Spri ments of a ch contains of cracked ; or which reially obj contains a equiremen	Percent 0.1 1.2 2.5 1.0 include when or Red ny of the grs more tha l kernels; o is musty, o ectionable quantity of tts cannot low qualit	Spring, we ades from n 16 percent which controlled resour, or he foreign odd smut so go be applied	which does No. 1 Heavent of moist ntains inse- teating, or l for except reat that as	not come to to No. 5, ure, or mo parable sto hot; or whi of smut or ny one or n	within the inclusive; ore than 10 ones and/or ch has any garlic; or nore of the	

¹ Applies to each of the subclasses Dark Northern Spring, Northern Spring, and Red Spring.

DURUM WHEAT (CLASS II)

This class shall include all varieties of common durum wheat, and may include not more than 10 percent of wheats of other classes. This class shall be divided into three subclasses, as follows:

SUBCLASS (A) HARD AMBER DURUM

This subclass shall include wheat of the class Durum Wheat consisting of 75 percent or more of hard and vitreous kernels of amber color.

SUBCLASS (B) AMBER DURUM

This subclass shall include wheat of the class Durum Wheat consisting of 60 percent or more but less than 75 percent of hard and vitreous kernels of amber color.

SUBCLASS (C) DURUM

This subclass shall include wheat of the class Durum Wheat consisting of less than 60 percent of hard and vitreous kernels of amber color.

RED DURUM WHEAT (CLASS III)

This class shall include all varieties of Red Durum Wheat, and may include not more than 10 percent of wheats of other classes.

Class II, Durum Wheat, and Class III, Red Durum Wheat: Grade requirements for the subclasses (a) Hard Amber Durum, (b) Amber Durum, and (c) Durum, of the class Durum Wheat, and for the class Red Durum Wheat

		Maximum limits of—						
a	Mini- mum test	Damage (wheat a	nd other	Foreign	material		Wheats of other classes	
Grade No.	weight per bushel	Total	Heat damaged	Total	Matter except other grains	Total	Soft Red Winter, White, and Red Durum, singly or combined 1	
1 2 8 4 5 Sample grade	Amber which o No. 1 t moistur insepar or hot; of smut one or	Durum, of does not contain the	or Durum, ome within nclusive; o e than 10 p s and/or cin has any con or which con he grade rec	or wheat the requir which coercent of creders; or which ders; or which numerically ontains a q	of the classements of contains more acked kernaich is must objections uantity of cannot be	ss Red Du any of the ore than 1 nels; or wh sty, or sound ble foreign smut so gr	Percent 3 5 10 10 10 r Durum, or rum Wheat, grades from 6 percent of lich contains, c of neating, odor except eat that any ccurately; or	

¹ These specifications do not apply to the class Red Durum Wheat, or to the subclass Durum.
² No. 1 Red Durum may contain 10 percent of wheats of other classes.

HARD RED WINTER WHEAT (CLASS IV)

This class shall include all varieties of Hard Red Winter Wheat, and may include not more than 10 per cent of wheats of other classes. This class shall be divided into three subclasses, as follows:

SUBCLASS (A) DARK HARD WINTER

This subclass shall include wheat of the class Hard Red Winter Wheat consisting of 75 percent or more of dark, hard, and vitreous kernels.

SUBCLASS (B) HARD WINTER

This subclass shall include wheat of the class Hard Red Winter Wheat consisting of more than 25 percent but less than 75 percent of dark, hard, and vitreous kernels.

SUBCLASS (C) YELLOW HARD WINTER

This subclass shall include wheat of the class Hard Red Winter Wheat consisting of not more than 25 percent of dark, hard, and vitreous kernels.

Class IV, Hard Red Winter Wheat: Grade requirements for (a) Dark Hard Winter,
(b) Hard Winter, (c) Yellow Hard Winter

		Maximum limits of—						
Grade No.	Mini- mum test weight	Damaged kernels (wheat and other grains)		Foreign material		Wheats of other classes		
	per bushel	Total	Heat- damaged	Total	Matter except other grains	Total	Durum and/or Red Durum	
1	or Har within clusive; than 10 and/or has an garlic; more of	d Winter the requir or which percent of cinders; or y commer or which of the grade	or Yello cements of contains recracked k which is recially objected	ow Hard any of the nore than ternels; or values, or sectionable quantity of tents cannot	Winter, we grades from 15.5 percent which cont sour, or her foreign od of smut so	which does om No. 1 to at of moist- ains insepa ating, or had or except great that	Percent 1 2 3 10 ard Winter, i not come o No. 5, in- ure, or more rable stones to; or which of smut or any one or ly; or which	

SOFT RED WINTER WHEAT (CLASS V)

This class shall include all varieties of soft red winter wheat and may include not more than 10 percent of wheats of other classes. This class shall be divided into two subclasses, as follows:

SUBCLASS (A) RED WINTER

This subclass shall include wheat of the class Soft Red Winter Wheat consisting of both light and dark colored kernels. This subclass shall not include more than 10 percent of soft red winter wheat grown west of the Great Plains area of the United States.

SUBCLASS (B) WESTERN RED

This subclass shall include wheat of the class Soft Red Winter Wheat consisting of more than 10 percent of wheat of this class grown west of the Great Plains area of the United States.

Class V, Soft Red Winter Wheat: Grade requirements for (a) Red Winter, (b) Western Red

		Maximum limits of—						
Grade No.	Mini- mum test		l kernels and other	Foreign	material		Wheats of other classes	
	weight per bushel	Total	Heat- damaged	Total	Matter except other grains	Total	Durum and/or Red Durum	
1	Red, w from N of moist insepar or hot; of smut any one	hich does : o. 1 to No. ture, or mo able stones or which 1 t or garlic; or more o	not come v 5, inclusiv re than 10 p and/or cir as any cor or which f the grade	vithin the re; or which percent of or who ders; or who mercially contains a	requirement contains cracked ker chich is must objectional quantity ents cannot	nts of any of more than nels; or what sty, or sour able foreign of smut s	Percent 0.5 1.0 2.0 10.0 10.0 10.0 or Western of the grades 15.5 percent ich contains, or heating, odor except o great that accurately;	

WHITE WHEAT (CLASS VI)

This class shall include all varieties of white wheat, whether winter or spring grown, and may include not more than 10 percent of wheats of other classes. This class shall be divided into four subclasses, as follows:

SUBCLASS (A) HARD WHITE

This subclass shall include all wheat of the class White Wheat consisting of 75 percent or more of hard (not soft and chalky) kernels. This subclass shall not include more than 10 percent of Sonora wheat or wheat of the white club varieties, either singly or in any combination.

SUBCLASS (B) SOFT WHITE

This subclass shall include wheat of the class White Wheat consisting of less than 75 percent of hard (not soft and chalky) kernels. This subclass shall not include more than 10 percent of Sonora wheat or wheat of the white club varieties, either singly or in any combination.

SUBCLASS (C) WHITE CLUB

This subclass shall include wheat of the class White Wheat consisting of Sonora wheat or wheat of the white club varieties, either singly or in any combination. This subclass shall not include more than 10 percent of common white wheat other than Sonora, either singly or in any combination.

SUBCLASS (D) WESTERN WHITE

This subclass shall include wheat of the class White Wheat which contains more than 10 percent of Sonora wheat or wheat of the white club varieties, either singly or in any combination, and which also contains more than 10 percent of common white wheat other than Sonora.

Class VI, White Wheat: Grade requirements for (a) Hard White, (b) Soft White, (c) White Club, (d) Western White

		Maximum limits of—						
Grade No.	Mini- mum test weight	Damaged kernels (wheat and other grains)		Foreign material		Wheats of other classes		
	per bushel	Total,	Heat- damaged	Total	Matter except other grains	Total	Durum and/or Red Durum	
1	White, require contain cracked or whice mercial contain requires	or White Coments of an smore that kernels; the is must by objections a quanti	Club, or We ay of the gran 15.5 percor which y, or sour, mable foreity of smut not be ap	stern Whit ades from cent of mo- contains in or heating gn odor ex so great t	te, which do No. 1 to No isture, or no nseparable to or hot; or cept of su hat any on	s Hard W oes not com o. 5, inclusis nore than is stones and or which h nut or garline or more	Percent 0.5 1.0 2.0 10.0 10.0 hite, or Soft te within the ve; or which to percent of d/or cinders; as any comic; or which of the grade otherwise of	

MIXED WHEAT (CLASS VII)

This class shall include all mixtures of wheat not provided for in the classes from I to VI, inclusive.

Grade requirements and designations.—Mixed Wheat shall be graded according to the numerical and Sample grade requirements of the class of wheat which predominates in the mixture, except that the grade specifications for the factor

"wheats of other classes" and the grade specifications for "No. 1 Heavy" in the standards for hard red spring wheat, shall be disregarded.

The grade designation for Mixed Wheat shall be stated as provided in either

paragraph (a) or (b) of this section:

(a) Except as specified in paragraph (b) of this section, the grade designation for Mixed Wheat shall include successively, in the order named, (1) the number of the grade or the words "Sample grade", as the case may be, (2) the words "Mixed Wheat", and (3) the name and approximate percentage of each class of wheat which constitutes more than 10 percent of the mixture in the order of its predominance; but if only one class exceeds 10 percent of the mixture, the name and approximate percentage of that class shall be included in the grade designation, followed by the name and approximate percentage of at least one other class.

(b) Mixed Durum.—Mixed Durum shall be mixed wheat consisting of 70

percent or more of common durum, and may contain not more than 10 percent of Red Durum and not more than 5 percent of soft red winter and/or white wheat. The grade designation for Mixed Durum shall include successively, in the order named, (1) the number of the grade or the words "Sample grade", as the case may be, and (2) the words "Mixed Durum."

DOCKAGE

Dockage includes weed seeds, weed stems, chaff, straw, grain other than wheat, sand, dirt, and any other foreign material, which can be removed readily from the wheat by the use of appropriate sieves and cleaning devices; also undeveloped, shriveled, and small pieces of wheat kernels removed in properly separating the foreign material, and which cannot be recovered by properly rescreening or recleaning.

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage. The percentage of dockage so calculated, when equal to 1 percent or more, shall be stated in terms of whole percent, and when less than 1 percent shall not be stated. A fraction of a percent shall be disregarded. The word "Dockage", together with the percentage

thereof, shall be added to the grade designation.

SPECIAL GRADES FOR WHEAT

TOUGH WHEAT

Definition.—Tough wheat shall be (a) wheat of any of the classes Hard Red Winter Wheat, Soft Red Winter Wheat, or White Wheat, or of the class Mixed Wheat in which wheat of any one of the classes Hard Red Winter Wheat, or Soft Red Winter Wheat, or White Wheat, predominates, which contains more than 14 percent but not more than 15.5 percent of moisture, and (b) wheat of any of the classes Hard Red Spring Wheat, or Durum Wheat, or Red Durum Wheat, or of the class Mixed Wheat in which wheat of any one of the classes Hard Red Spring Wheat, or Durum Wheat, or Red Durum Wheat, predominates, which contains more than 14.5 percent but not more than 16 percent of moisture.

Grades.—Tough wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not tough, and there shall be added to, and made a part of, the grade designation, the word

"Tough."

SMUTTY WHEAT

Definition.—Smutty wheat shall be wheat which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls of average size in 250 grams of wheat.

Smutty wheat shall be graded and designated according to the method described

either in paragraph (a) or paragraph (b) of this section.

(a) Smut dockage.—Before the determination of smut dockage as provided in this paragraph, the wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not smutty. The smut shall be removed by scouring and the loss in weight of the wheat caused by the removal of the smut shall be calculated in terms of percentage based on the total weight of the grain when free from dockage. The percentage so calculated shall be stated in terms of half percent, whole percent, or whole and half percent, as the case may be. A fraction of a half percent shall be disregarded. The percentage of the smut dockage, so calculated and stated, shall be added to the grade designation, preceding the statement of dockage, if any.

(b) "Light Smutty" and "Smutty."—Smutty wheat shall be graded and designated according to the grade requirements of the standards applicable to such

wheat if it were not smutty; and

(1) In the case of smutty wheat which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls but not in excess of a quantity equal to 30 balls of average size in 250 grams of wheat, there shall be added to, and made a part of, the grade designation, the words "Light Smutty"; and

(2) In the case of smutty wheat which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of wheat, there shall be added to, and made a part of, the grade designation, the word "Smutty."

GARLICKY WHEAT

Definition.—Garlicky wheat shall be wheat which contains two or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of wheat.

Grades.—Garlicky wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not

garlicky; and

(1) In the case of garlicky wheat which contains two or more but not more than six green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of wheat, there shall be added to, and made a part of, the grade designation, the words "Light Garlicky"; and

(2) In the case of garlicky wheat which contains more than six green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of wheat, there shall be added to, and made a part of, the grade designation, the word "Garlicky."

WEEVILY WHEAT

Definition.—Weevily wheat shall be wheat which is infested with live weevils

or other insects injurious to stored grain.

Grades.—Weevily wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

ERGOTY WHEAT

Definition.—Ergoty wheat shall be wheat which contains ergot in excess of

0.3 percent.

Grades.—Ergoty wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

TREATED WHEAT

Definition.—Treated wheat shall be wheat which has been scoured, limed, mashed, sulphured, or treated in such a manner that its true quality is not reflected by either the numerical grade or the Sample grade designation, alone.

Grades.—Treated wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not treated, and there shall be added to, and made a part of, the grade designation, a statement indicating the kind of treatment.

DEFINITIONS

Basis of grade determinations.—Each determination of dockage, temperature, odor, garlic, and live weevils or other insects injurious to stored grain, shall be upon the basis of the grain as a whole. All other determinations shall be upon the basis of the grain when free from dockage.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per

Foreign material.—Foreign material shall include all matter other than wheat which is not separated from the wheat in the proper determination of dockage, except that smut balls shall not be considered as foreign material.

Other grains.—Other grains shall include rye, oats, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Damaged kernels.—Damaged kernels shall be kernels and pieces of kernels of wheat and other grains which are heat damaged, sprouted, frosted, badly ground

damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of wheat and other grains which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

Cracked kernels.—Cracked kernels shall be broken kernels of wheat and other

grains remaining after the removal of dockage.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE. Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR CORN

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. Wallace, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for corn, as hereinafter described, which shall become effective on the 1st day of September 1934, and shall thereupon supersede the official grain standards of the United States for corn, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR CORN 2

For the purposes of the official grain standards of the United States for corn

(maize):

Corn.—Corn shall be any grain which consists of 50 percent or more of shelled corn of the dent or flint varieties, and may contain not more than 10 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act.

Classes.—Corn shall be divided into three classes, as follows: Class I, Yellow

Corn; Class II, White Corn; and Class III, Mixed Corn.

YELLOW CORN (CLASS I)

This class shall include yellow corn, and may include not more than 5 percent of corn of other colors. A slight tinge of red on kernels of corn otherwise yellow shall not affect their classification as Yellow Corn.

WHITE CORN (CLASS II)

This class shall include white corn, and may include not more than 2 percent of corn of other colors. A slight tinge of light straw color or of pink on kernels of corn otherwise v hite shall not affect their classification as White Corn.

² The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

MIXED CORN (CLASS III)

This class shall consist of corn of various colors that does not meet the color requirements for either of the classes Yellow Corn or White Corn. White-capped yellow kernels shall be classified as Mixed Corn.

Grades.—Corn shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of its appropriate

class, and according to the special grades when applicable.

Corn: Grade requirements for Yellow Corn, White Corn, and Mixed Corn

		Maximum limits of—					
Grade No.	Minimum test weight per bushel	Moisture	Cracked corn and foreign	Damaged kernels (corn and other grains)			
			material	Total	Heat- damaged		
1	or White in the req 5, inclusi which is any comr	Corn, or Mix uirements of ve; or which musty, or so	ted Corn, which any of the gold contains stur, or heating ectionable for	Percent 3 5 7 10 15 the class Y thich does not rades from Nones and/or g, or hot; or or eign odor;	come with- lo. 1 to No. cinders; or which has		

SPECIAL GRADES FOR CORN

FLINT CORN

Definition.—Flint corn shall be corn of any class which consists of more than

25 percent of flint corn.

Grades.—Flint corn shall be graded and designated according to the grade requirements of the standards applicable to such corn if it were not flint corn, and the word "Flint" shall be added to, and made a part of, the grade designation, immediately following the word Yellow, or White, or Mixed, as the case may be.

WEEVILY CORN

Definition.—Weevily corn shall be corn that is infested with live weevils or

other insects injurious to stored grain.

Grades.—Weevily corn shall be graded and designated according to the grade requirements of the standards applicable to such corn if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

DEFINITIONS

Basis of grade determinations.—Each determination of class, variety, damage, and heat damage, shall be upon the basis of the grain after the removal of the cracked corn and foreign material. All other determinations shall be upon the basis of the grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Cracked corn and foreign material.—Cracked corn and foreign material shall include kernels and pieces of kernels of corn and all matter other than corn which will pass through a No. 12 sieve, and all matter other than corn remaining on such sieve after screening.

No. 12 sieve.—A metal sieve perforated with round holes ½4 inch in diameter.

Other grains.—Other grains shall include wheat, rye, oats, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, sweet corn, pop corn, and soybeans.

Depended kornels and specific and vices of kornels of

Damaged kernels.—Damaged kernels shall be kernels and pieces of kernels of corn and other grains which are heat damaged, sprouted, frosted, badly ground

damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of corn and other grains which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington,

this the 31st day of March 1934.

[SEAL]

H. A. WALLACE, Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR BARLEY

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for barley, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for barley, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR BARLEY 3

For the purposes of the official grain standards of the United States for barley: Barley.—Barley shall be any grain which, before the removal of dockage, consists of 50 percent or more of barley, and may contain not more than 25 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act. The term "barley" in these standards shall not include hull-less barley.

Classes.—Barley shall be divided into four classes, as follows: Class I, Barley; Class II, Black Barley; Class III, Western Barley; and Class IV, Mixed Barley.

Grades.—Barley shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of its appropriate class or subclass, and according to the special grades when applicable.

BARLEY (CLASS I)

This class shall include all white (glumes) barley grown east of the Rocky Mountains and may include not more than 10 percent of barley of other classes. This class shall be divided into two subclasses, as follows:

SUBCLASS (A) MALTING BARLEY

This subclass shall include 6-rowed barley of the class Barley (Class I) which meets the requirements of grades Nos. 1 to 3, inclusive, which, after the removal of dockage, contains not more than 5 percent of 2-rowed and/or other types or varieties of barley of unsuitable malting type such as Trebi and Black; which contains not more than 15 percent of barley and other matter that will pass through a 20-gage metal sieve with slotted perforations 0.076 (4%/64) of an inch wide and ¾ of an inch long; which contains not more than 5 percent of skinned and/or broken kernels; which contains not more than 4 percent of damaged barley; and shall not include Bleached barley. Barley of this subclass shall contain 75 percent or more of mellow barley kernels which kernels are not, en masse semi-steely masse, semi-steely.

³ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

SUBCLASS (B) BARLEY

This subclass shall include all barley of the class Barley which does not meet the requirements of subclass (A) Malting Barley.

BLACK BARLEY (CLASS II)

This class shall include all varieties of black (glumes) barley grown anywhere in the United States, and may include not more than 10 percent of barley of other classes.

Class I, Barley, and Class II, Black Barley: Grade requirements for subclass (a) Malting Barley and subclass (b) Barley of the class Barley, and for the class Black Barley

	Minimum limits of—			Maximum limits of—				
Grade No.	Test weight per bushel	Sound barley ¹	Heat-damaged kernels (barley, other grains, and wild oats)	Foreign material	Broken kernels	Black barley ²		
1 3	Barley, v grades fro of moistu is musty, foreign of great tha	which does not not 1 to not not 1 to not not 1 to not not not not not not not not not	Percent 0.1 2 5 1.0 3.0 0.1 0.2 0.1 0.2 0.2 0.2 0.2 0.3 0.3 0.4 0.5 0.5 0.6 0.6 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7	the grade red which conta rable stones th has any conta which conta rade requirer	quirements of ains more that and/or cindent mmercially of ains a quantity ments cannot	of any of the in 16 percent ers; or which objectionable ty of smut so		

¹ Any barley in grade No. 1 that does not come within the provisions of the special grade Blighted, may contain not more than 2 percent of blight-damaged barley; and barley in any grade from No. 2 to Sample grade, inclusive, that does not come within the provisions of the special grade Blighted, may contain not more than 4 percent of blight-damaged barley. Any barley containing more than 4 percent of blight-damaged barley shall be graded No. 1, No. 2, No. 3, No. 4, No. 5, or Sample grade, Blighted, as the case may be, as provided in the specifications for Blighted barley.
¹ These specifications do not apply to the class Black Barley.
² These special requirements for subclass (A) Malting Barley.
⁴ Barley that is badly stained or materially weathered, shall not be graded higher than No. 4.

WESTERN BARLEY (CLASS III)

This class shall include white (glumes) barley grown west of the Great Plains area of the United States, and may include not more than 10 percent of barley of other classes.

Class III, Western Barley: Grade requirements for Western Barley

	25	Maximum limits of—						
Grade No.	Minimum limits of sound barley	Heat-damaged kernels (barley, other grains, and wild oats)	Wild oats	Foreign material	Broken kernels	Black barley		
1	come wit inclusive, contains which is objection tity of sm be applie of a char	Percent 0.1 2 3 5 1.0 de shall include hin the grade rec or which conts inseparable ado musty, or sour, of able foreign odor nut so great that da accurately; or acter and in a q or feeding purpos	uirements of hins more the be, stones, and or heating, or except of smit any one or not which controlled.	any of the g an 15 percer and cinders, r hot; or whi ut or garlic; o nore of the gr ains the seed cient to caus	rades from N nt of moistur singly or co ch has any c r which cont ade requiren is of wild br se the grain	to 1 to No. 5, re; or which ombined; or ommercially ains a quantents cannot come grasses to be of low		

MIXED BARLEY (CLASS IV)

This class shall be any mixture of barley not provided for in the classes from I to III, inclusive.

Grade requirements and designations.—Mixed Barley shall be graded according to the grade requirements of either (1) the subclass Barley of the class Barley, or (2) the class Black Barley, or (3) the class Western Barley, according to which class of barley predominates in the mixture, except that all grade specifications

as to the maximum percentages of black barley shall be disregarded.

The grade designation for Mixed Barley shall include successively, in the order named, the number of the grade or the words "Sample grade", as the case may be; the words "Mixed Barley", followed by the name and approximate percentage of each class of barley which constitutes 10 percent or more of the mixture in the order of its predominance, but if only one class exceeds 10 percent of the mixture, the name and approximate percentage of that class shall be included in the grade designation, followed by the name and approximate percentage of at least one other class. For Mixed Barley, in which barley of the class Western Barley predominates, the grade designation shall include a statement of the test weight per bushel immediately following the names and percentages of the classes composing the mixture.

DOCKAGE

Dockage in barley shall be determined according to the method described in paragraph (a), or paragraph (b), or paragraph (c), of this section.

(a) In the case of Barley (Class I), and Black Barley (Class II), dockage includes all matter which can be removed from the barley by the use of a metal sieve perforated with equilateral triangular perforations the inscribed circles of which are 5/64 inch in diameter.

(b) In the case of Western Barley (Class III), dockage includes weed seeds, weed stems, chaff, straw, grain other than barley, sand, dirt, and any material other than barley, which can be removed readily from the barley by the use of appropriate sieves and cleaning devices; also undeveloped, shriveled, and small

which cannot be recovered by properly rescreening or recleaning.

(c) In the case of Mixed Barley (Class IV), the dockage determination shall be made in accordance with the specifications given in paragraph (a) when barley, either of the class Barley (Class II) or barley of the class Black Barley (Class II) predominates in the mixture, or in accordance with the specifications given in paragraph (b) when barley of the class Western Barley (Class III) predominates in the mixture.

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage. The percentage of dockage, so calculated, when equal to 1 percent or more, shall be stated in terms of whole percent, and when less than 1 percent shall not be stated. A fraction of a percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.

SPECIAL GRADES FOR BARLEY

TEST WEIGHT OF WESTERN BARLEY

Grades for test weight of Western Barley.—For barley of the class Western Barley, the test weight per bushel in terms of whole pounds shall be added to, and made a part of, the grade designation, following the name of the class. A fraction of a pound shall be disregarded.

TWO-ROWED BARLEY

Definition.—Two-rowed barley shall consist of 2-rowed barley of the subclass Barley of the class Barley, or of the class Western Barley, and may contain not

more than 10 percent of barley of other varieties.

Grades.—Two-rowed barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not 2rowed, and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the word "Two-rowed."

TOUGH BARLEY

Definition.—Tough barley shall be (a) barley of either of the classes Barley or Black Barley, or of the class Mixed Barley in which barley of either one of the classes Barley or Black Barley predominates, which contains more than 14.5 percent but not more than 16 percent of moisture, and (b) barley of the class Western Barley, or of the class Mixed Barley in which barley of the class Western Barley predominates, which contains more than 13.5 percent but not more than

15 percent of moisture.

Grades.—Tough barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough."

BRIGHT WESTERN BARLEY

Definition.—Bright Western barley shall be barley of the class Western Barley,

except Bleached barley, that is of good natural color.

Grades.—Bright Western barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not bright, and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the word "Bright."

STAINED WESTERN BARLEY

Definition.—Stained Western barley shall be barley of the class Western Barley, except Bleached barley, that is badly stained, or weathered.

Grades.—Stained Western barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not stained, and there shall be added to, and made a part of, the grade designation, the word "Stained."

BLIGHTED BARLEY

Definition.—Blighted barley shall be all barley which contains more than 4 percent of barley damaged or materially discolored by blight and/or mold.

Grades.—Blighted barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not blighted, and there shall be added to, and made a part of, the grade designation, the word "Blighted."

SMUTTY BARLEY

Definition.—Smutty barley shall be barley which has the kernels covered with

smut spores, or which contains smut masses in excess of 0.2 percent.

Grades.—Smutty barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

GARLICKY BARLEY

Definition.—Garlicky barley shall be barley which contains 3 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 500

grams of barley.

Grades.—Garlicky barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not garlicky, and there shall be added to, and made a part of, the grade designation, the word "Garlicky."

WEEVILY BARLEY

Definition.—Weevily barley shall be barley which is infested with live weevils

or other insects injurious to stored grain.

Grades.—Weevily barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

ERGOTY BARLEY

Definition.—Ergoty barley shall be barley which contains ergot in excess of

0.3 percent.

Grades.—Ergoty barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

BLEACHED BARLEY

Definition.—Bleached barley shall be barley which, in whole or in part, has

been treated by the use of sulphurous acid or any other bleaching agent.

Grades.—Bleached barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not bleached, and there shall be added to, and made a part of, the grade designation, the word "Bleached."

DEFINITIONS

Basis of grade determinations.—Each determination of dockage, temperature, odor, garlic, and live weevils or other insects injurious to stored grain, shall be upon the basis of the grain as a whole. All other determinations shall be upon the basis of the grain when free from dockage.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel, as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter other than barley,

except other grains, wild oats, and smut masses, which is not separated from the

barley in the proper determination of dockage.

Other grains.—Other grains shall include wheat, rye, oats, corn, grain sorghums, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Sound barley.—Sound barley shall be kernels and pieces of kernels of barley remaining after the removal of dockage, which are not damaged or materially discolored by blight and/or mold, which are not heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of

kernels of barley, other grains, and wild oats, which have been materially discolored and damaged by external heat or as a result of heating caused by fer-

mentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE, Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR OATS

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. Wallace, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for oats, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for oats, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR OATS 4

For the purposes of the official grain standards of the United States for oats: Oats.—Oats shall be any grain which consists of 80 percent or more of culti-

vated oats. Oats may contain not more than 10 percent of wild oats. Classes.—Oats shall be divided into five classes as follows: Class I, White Oats; Class II, Red Oats; Class III, Gray Oats; Class IV, Black Oats; and Class V, Mixed Oats. For the purpose of this classification, the characteristics of each class, except Mixed Oats, shall be based on color characteristics of each class, except Mixed Oats, shall be based on color characteristics; White Oats shall include yellow oats; and tinges of white, brown, or black, on the kernels of any red oats variety shall not affect their classification as red oats. Oats of any class except Mixed Oats may include not more than 10 percent of cultivated oats of other classes. Mixed Oats shall be any mixture of oats which does not meet the requirements for any one of the classes White Oats, Red Oats, Gray Oats, or Black Oats.

Grades.—Oats shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of their appropriate

class, and according to the special grades when applicable.

Oats: Grade requirements for the classes White Oats, Red Oats, Gray Oats, Black Oats, and Mixed Oats

	Minimum	limits of—	Maximum limits of—			
Grade No.		Sound cul- tivated oats	Heat-damaged kernels (oats, other grains, and wild oats)	Foreign material	Wild oats	
1 1	Oats, Re which do grades fro than 16 ; cinders; or which except of grasses of grain to	ed Oats, Grand on the come of	Percent 0.1 3.0 1.0 3.0 ude oats of any cay Oats, Black within the requived by the control of t	Oats, or Marements of a or which contain sto ir, or heatin ectionable for ain seeds of way sufficient to	ixed Oats, any of the ntain more nes and/or g, or hot; reign odor vild brome o cause the	

The oats in grade No. 1 White Oats may contain not more than 5 percent of oats of other classes, of which not more than 3 percent may be black cultivated oats.
 The oats in grade No. 2 White Oats may contain not more than 5 percent of black cultivated oats.
 Oats that are slightly weathered shall not be graded higher than No. 3.
 Oats that are badly stained or materially weathered shall not be graded higher than No. 4.

SPECIAL GRADES FOR OATS

TOUGH OATS

Definition.—Tough oats shall be oats which contain more than 14.5 percent

but not more than 16 percent of moisture.

Grades.—Tough oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough."

HEAVY OATS

Definition.—Heavy oats shall be oats which have a test weight per bushel of

35 pounds or more but less than 38 pounds.

Grades.—Heavy oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not "heavy" and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the word "Heavy."

⁴ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

EXTRA HEAVY OATS

Definition.—Extra Heavy oats shall be oats which have a test weight per

bushel of 38 pounds or more.

Grades.—Extra Heavy oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not "extra heavy", and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the words "Extra Heavy".

BRIGHT OATS

Definition.—Bright oats shall be oats, except Bleached oats, that are of good

natural color.

Grades.—Bright oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not bright, and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the word "Bright."

CEREAL OATS

Definition.—Cereal oats shall be any oats, whether sized, clipped, or natural, which contain more than 20 percent of oats and/or other matter that will pass through a 20-gauge metal sieve with slotted perforations 0.064 inch wide by

inch long.

Grades.—Cereal oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not "cereal" oats, and there shall be added to, and made a part of, the grade designation, the word "Cereal."

BLEACHED OATS

Definition.—Bleached oats shall be oats which, in whole or in part, have been

treated by the use of sulphurous acid or any other bleaching agent.

Grades.—Bleached oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not bleached, and there shall be added to, and made a part of, the grade designation, the word "Bleached."

WEEVILY OATS

Definition.—Weevily oats shall be oats which are infested with live weevils or

other insects injurious to stored grain.

Grades.—Weevily oats shall be graded and designated accordingly to the grade requirements of the standards applicable to such oats if they were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

SMUTTY OATS

Definition.—Smutty oats shall be oats which contain balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250

grams of oats.

Grades.—Smutty oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

ERGOTY OATS

Definition.—Ergoty oats shall be oats which contain ergot in excess of 0.3

percent.

Grades.—Ergoty oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

GARLICKY OATS

Definition.—Garlicky oats shall be oats which contain 4 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 500 grams of oats.

Grades.—Garlicky oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not garlicky, and there shall be added to, and made a part of, the grade designation, the word "Garlicky."

DEFINITIONS

Basis of grade determinations.—All determinations shall be upon the basis of the lot of grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter except kernels and pieces of kernels of cultivated oats, other grains, and wild oats; but shall include oats clippings and detached hulls.

Other grains.—Other grains shall include wheat, rye, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Sound cultivated oats.—Sound cultivated oats shall be all kernels and pieces of kernels of cultivated oats which are not heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of cultivated oats, other grains, and wild oats, which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE, Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR FEED OATS

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, established lish, promulgate, and give public notice of, standards of quality and condition for Feed Oats, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for Feed Oats, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR FEED OATS 5

For the purposes of the official grain standards of the United States for Feed Oats:

Feed Oats.—Feed Oats shall be any grain which consists of either (a) 30 percent or more but less than 80 percent of cultivated oats, but not less than 65 percent of cultivated and wild oats combined, or (b) 80 percent or more of cultivated oats and more than 10 percent of wild oats. Feed Oats may contain not more than 25 percent of other grains, and may contain not more than 10 percent of foreign material, which 10 percent may include not more than 5 percent of fine seeds.

-Feed Oats shall be graded and designated according to the respec-Grades.tive grade requirements of the numerical grades and Sample grade of these

standards, and according to the special grades when applicable.

⁵ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

Feed Oats: Grade requirements for Feed Oats

	Minimum	limits of—	Maximum limits of—			
Grade No	Test weight per	Cultivated	Heat-damaged kernels (oats,	Foreign material		
	bushel oats	wild oats, and other grains)	Total	Fine seeds		
1	the requi clusive; o which are commerc garlic; or ter and i	rements of a or which con e musty or so ially objecti which conta n a quantity or feeding pur	Percent 2 4 6 ude feed oats wh ny of the grades tain more than 1 our, or heating, o onable foreign o in seeds of wild t sufficient to cau rposes; or which s	from No. 1 6 percent of r hot; or whi ordor except frome grasses ase the grain	to No. 3, in- moisture; or ch have any of smut or s of a charac- to be of low	

¹ Feed Oats that are badly stained or materially weathered, shall not be graded higher than No. 3.

SPECIAL GRADES FOR FEED OATS

TOUGH FEED OATS

Definition .- Tough Feed Oats shall be feed oats which contain more than

14.5 percent but not more than 16 percent of moisture.

Grades.—Tough Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough."

BLEACHED FEED OATS

Definition.—Bleached Feed Oats shall be feed oats which, in whole or in part,

have been treated by the use of sulphurous acid or any other bleaching agent.

Grades.—Bleached Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not bleached, and there shall be added to, and made a part of, the grade designation, the word "Bleached".

WEEVILY FEED OATS

Definition.—Weevily Feed Oats shall be feed oats which are infested with

live weevils or other insects injurious to stored grain.

Grades.—Weevily Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

SMUTTY FEED OATS

Definition.—Smutty Feed Oats shall be feed oats which contain balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of feed oats.

Grades.—Smutty Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

ERGOTY FEED OATS

Definition.—Ergoty Feed Oats shall be feed oats which contain ergot in excess

of 0.3 percent. Grades.—Ergoty Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

DEFINITIONS

Basis of grade determinations.—All determinations shall be upon the basis of the lot of grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter except kernels and pieces of kernels of cultivated oats, other grains, and wild oats; but shall include

oats clippings and detached hulls.

Fine seeds.—Fine seeds shall include all matter which can be removed from feed oats by the use of a metal sieve perforated with equilateral triangular perforations the inscribed circles of which are 1/4 inch in diameter.

Other grains.—Other grains shall include wheat, rye, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of cultivated oats, wild oats, and other grains, which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE, Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR MIXED FEED OATS

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, chap. 3, sec. 74), I, H. A. Wallace, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for Mixed Feed Oats, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for Mixed Feed Oats, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR MIXED FEED OATS 6

For the purposes of the official grain standards of the United States for Mixed

Feed Oats:

Mixed Feed Oats.—Mixed Feed Oats shall be any grain which consists of less than 30 percent of cultivated oats, but either (a) not less than 65 percent of cultivated and wild oats combined, or (b) not less than 65 percent of wild oats; may contain not more than 25 percent of other grains; and may contain not more than 10 percent of foreign material, which 10 percent may include not more than 5 percent of fine seeds.

Grades.—Mixed Feed Oats shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of these

standards, and according to the special grades when applicable.

⁶ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

Mixed Feed Oats: Grade requirements for Mixed Feed Oats

		Maximum limits of—			
Grade No.	Minimum test weight per bushel	Heat-damaged kernels (oats,	Foreign material		
		wild oats, and other grains)	Total	Fine seeds	
2 2 8 1 Sample grade	not come grades fro tain mor- are must have any except of wild bron sufficient feeding p	Percent 2 4 6 de shall include: b within the req om No. 1 to No. 3 e than 16 percer y, or sour, or he commercially o' smut or garlic; on e grasses of a ch- to cause the grai urposes; or whi w quality.	uirements of, inclusive; of the control of the cont	f any of the r which con- re; or which ot; or which foreign odor tain seeds of n a quantity v quality for	

¹ Mixed Feed Oats that are badly stained or materially weathered, shall not be graded higher than No. 3.

SPECIAL GRADES FOR MIXED FEED OATS

TOUGH MIXED FEED OATS

Definition.—Tough Mixed Feed Oats shall be mixed feed oats which contain

more than 14.5 percent but not more than 16 percent of moisture.

Grades.—Tough Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough."

BLEACHED MIXED FEED OATS

Definition.—Bleached Mixed Feed Oats shall be mixed feed oats which, in whole or in part, have been treated by the use of sulphurous acid or any other bleaching agent.

Grades.—Bleached Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not bleached, and there shall be added to, and made a part of, the grade designation, the word "Bleached."

WEEVILY MIXED FEED OATS

Definition.—Weevily Mixed Feed Oats shall be mixed feed oats which are infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily Mixed Feed Oats shall be graded and designated according

to the grade requirements of the standards applicable to such mixed feed oats if they were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

SMUTTY MIXED FEED OATS

Definition.—Smutty Mixed Feed Oats shall be mixed feed oats which contain

balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of mixed feed oats.

Grades.—Smutty Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

ERGOTY MIXED FEED OATS

Definition.—Ergoty Mixed Feed Oats shall be mixed feed oats which contain ergot in excess of 0.3 percent.

Grades.—Ergoty Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

DEFINITIONS

Basis of grade determinations.—All determinations shall be upon the basis of the lot of grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter except kernels and pieces of kernels of cultivated oats, other grains, and wild oats; and shall include

oats clippings and detached hulls.

Fine seeds.—Fine seeds shall include all matter which can be removed from from Mixed Feed Oats by the use of a metal sieve perforated with equilateral triangular perforations the inscribed circles of which are 1/24 inch in diameter.

Other grains.—Other grains shall include wheat, rye, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of cultivated oats, wild oats, or other grains, which have been materially discolored and damaged by external heat or as a result of heating caused by

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE. Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR RYE

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. Wallace, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for rye, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for rye, and any amendments thereto, as previously promulgated under said act:

OFFICAL GRAIN STANDARDS OF THE UNITED STATES FOR RYE 7

For the purposes of the official grain standards of the United States for rye: Rye.—Rye shall be any grain which, before the removal of dockage, consists of 50 percent or more of rye and not more than 10 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act.

Grades.—Rye shall be graded and designated according to the respective grade requirements of the numerical grades and sample grade of these standards, and according to the special grades when applicable.

⁷ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

Rye: Grade requirements for rye

			Maximum	limits of—	
Grade No.	Minimum test weight per bushel	Damaged kernels (rye and other grains)		Foreign material	
		Total	Heat-dam- aged	Total	Foreign matter other than wheat
1	Pounds Percent See 2 0.1 56 54 47 7. 52 6 54 7 52 6 6 6 6 6 8 8 8 8 8 8 8 8				1 2 4 6 come within 1. I to No. 4, cent of mois-d/or cinders; or which has cept of smut so great that innot be ap-

DOCKAGE

Dockage includes weed seeds, weed stems, chaff, straw, grain other than rye, sand, dirt, and any other foreign material, which can be removed readily from the rye by the use of appropriate sieves and cleaning devices; also undeveloped, shriveled, and small pieces of rye kernels which are removed in properly separating the foreign material, and which cannot be recovered by properly rescreening or

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage. The percentage of dockage so calculated, when equal to I percent or more, shall be stated in terms of whole percent, and when less than I percent shall not be stated. A fraction of a percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.

SPECIAL GRADES FOR RYE

TOUGH RYE

Definition.—Tough rye shall be rye which contains more than 14 percent, but

not more than 16 percent, of moisture.

Grades.—Tough rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough".

SMUTTY RYE

Definition.—Smutty rye shall be rye which has an unmistakable order of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls of average size in 250 grams of rye.

Grades.—Smutty rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not smutty; and

(1) In the case of smutty rye which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls but not in excess of a quantity equal to 30 balls of average size in 250 grams of rye, there shall be added to, and made a part of, the grade designation, the words "Light Smutty"; and

(2) In the case of smutty rye which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of rye, there shall be added to, and made a part of, the grade designation, the word "Smutty".

GARLICKY RYE

Definition.—Garlicky rye shall be rye which contains 2 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams

Grades.—Garlicky rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not garlicky; and

(1) In the case of garlicky rye which contains 2 or more but not more than 6 green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of rye, there shall be added to, and made a part of, the grade designation, the words "Light Garlicky"; and

(2) In the case of garlicky rye which contains more than 6 green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of rye, there shall be added to, and made a part of, the grade designation, the word "(Caplichu")"

"Garlicky"

WEEVILY RYE

Definition.—Weevily rye shall be rye which is infested with live weevils or

other insects injurious to stored grain.

Grades.—Weevily rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily".

ERGOTY RYE

Definition.—Ergoty rye shall be rye which contains ergot in excess of 0.3

Grades.—Ergoty rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty"

DEFINITIONS

Basis of grade determinations.—Each determination of dockage, temperature, odor, garlic, and live weevils or other insects injurious to stored grain, shall be upon the basis of the grain as a whole. All other determinations shall be upon the basis of the grain when free from dockage.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter other than rye, which is not separated from the rye in the proper determination of dockage,

except that smut balls shall not be considered as foreign material.

Other grains.—Other grains shall include wheat, oats, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Damaged kernels.—Damaged kernels shall be kernels and pieces of kernels of rye and other grains which are heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of rye and other grains which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE, Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR GRAIN SORGHUMS

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, chap. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for grain sorghums, as hereinafter described, which shall become effective on the 1st day of September 1934, and shall thereupon supersede the official grain standards of the United States for grain sorghums, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR GRAIN SORGHUMS 8

For the purposes of the official grain standards of the United States for grain sorghums:

Grain sorghums.—Grain sorghums shall be any grain which, before the removal of dockage, consists of 50 percent or more of grain sorghums and not more than 10 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act, and which, after the removal of dockage and of "cracked kernels, foreign material, and other grains", contains not more than 25 percent of nongrain sorghums.

Classes.—Grain sorghums shall be divided into five classes as follows: Class I, White Grain Sorghums; Class II, Yellow Grain Sorghums; Class III, Red Grain Sorghums; Class IV, Brown Grain Sorghums; and Class V, Mixed Grain Sorghums.

Grades.—Grain sorghums shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of their appropriate class or subclass, and according to the special grades when applicable.

WHITE GRAIN SORGHUMS (CLASS I)

This class shall include all varieties of white grain sorghums, and may include not more than 10 percent of grain sorghums of other colors. Colored spots upon kernels that are otherwise white shall not affect their classification as white. This class shall be divided into three subclasses as follows:

SUBCLASS (A) WHITE KAFIR

This subclass shall include grain sorghums of the white kafir type, including hegari, and may include not more than 10 percent of other white grain sorghums, grain sorghums of other colors, or nongrain sorghums of other colors, singly or in any combination.

SUBCLASS (B) WHITE DURRA

This subclass shall include grain sorghums of the white durra type, and may include not more than 10 percent of other white grain sorghums, grain sorghums of other colors, or nongrain sorghums of other colors, singly or in any combination.

SUBCLASS (C) WHITE GRAIN SORGHUMS

This subclass shall include all grain sorghums of the class White Grain Sorghums not coming within the classification for subclass (a) White Kafir, or subclass (b) White Durra.

YELLOW GRAIN SORGHUMS (CLASS II)

This class shall include all varieties of yellow and salmon-pink grain sorghums, and may include not more than 10 percent of grain sorghums of other colors. This class shall be divided into two subclasses as follows:

SUBCLASS (A) YELLOW MILO

This subclass shall include grain sorghums of the yellow milo type, and may include not more than 10 percent of other yellow grain sorghums, grain sorghums of other colors, or nongrain sorghums of other colors, singly or in any combination.

⁸ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

SUBCLASS (B) YELLOW GRAIN SORGHUMS

This subclass shall include all grain sorghums of the class Yellow Grain Sorghums not coming within the classification for subclass (a) Yellow Milo.

RED GRAIN SORGHUMS (CLASS III)

This class shall include all varieties of red grain sorghums, and may include not more than 10 percent of grain sorghums of other colors. This class shall be divided into two subclasses as follows:

SUBCLASS (A) RED KAFIR

This subclass shall include grain sorghums of the red kafir type and may include not more than 10 percent of other red grain sorghums, grain sorghums of other colors, or nongrain sorghums of other colors, singly or in any combination

SUBCLASS (B) RED GRAIN SORGHUMS

This subclass shall include all grain sorghums of the class Red Grain Sorghums not coming within the classification for subclass (a) Red Kafir.

BROWN GRAIN SORGHUMS (CLASS IV)

This class shall include all varieties of brown grain sorghums, and may include not more than 10 percent of grain sorghums of other colors.

Grain Sorghums: Grade requirements for grain sorghums

		Maximum limits of—				
Grade No.	Minimum test weight per bushel	Moisture	Damaged kernels (grain sorghums, nongrain sorghums, and other grains)		Nongrain sorghums	Total cracked kernels, foreign ma-
			Total	Heat- damaged		terial, and other grains
1	Pounds Percent Percent Percent Percent 4 55 14 2 0.2 1 4 53 15 5 5 5 14 10 10 10 10 15 Sample grade shall include grain sorghums of any class or subclass which do not come within the requirements of any of the grades from No. 1 to No. 4, inclusive; or which contain inseparable stones and/or cinders; or which are musty, or sour, or heating, or hot; or which are badly weathered; or which have any commercially objectionable foreign odor except of smut; or which are otherwise of distinctly low quality.					

MIXED GRAIN SORGHUMS (CLASS V)

This class shall include all mixtures of grain sorghums not provided for in the classes from I to IV, inclusive.

Grade requirements and designations.—The grade designation for Mixed Grain Sorghums shall include, successively, in the order named: (1) The number of the grade or the words "Sample grade", as the case may be; (2) the words "Mixed Grain Sorghums"; (3) the name and the approximate percentage of each class of grain sorghums which constitutes 10 percent or more of the mixture, in the order of its predominance, but if only one class exceeds 10 percent of the mixture, the name and approximate percentage of that class shall be included in the grade designation, followed by the name and approximate percentage of at least one other class. In those cases where Mixed Grain Sorghums consist of 70 percent or more of grain sorghums of the types white kafir, white durra, yellow milo, or red kafir, singly or combined, and not more than 10 percent of brown grain sorghums, the word "Mixed" shall be substituted for the words "Mixed Grain Sorghums", and the name of the appropriate subclass or subclasses for such type or types, as the case may be, shall be substituted for the class names, in the grade designation.

DOCKAGE

Dockage includes sand, dirt, finely broken kernels, weed seeds, and other foreign material, which can be removed readily from the grain sorghums by means of a metal sieve perforated with round holes $2\frac{1}{2}/64$ inch in diameter. The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage.

Dockage shall be stated in terms of half percent, whole percent, or whole and half percent, as the case may be. A fraction of a half percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the

grade designation.

SPECIAL GRADES FOR GRAIN SORGHUMS

BRIGHT GRAIN SORGHUMS

Definition.—Bright grain sorghums shall be grain sorghums, of any class or

subclass, which have good, natural color.

Grades.—Bright grain sorghums shall be graded and designated according to the grade requirements of the standards applicable to such grain sorghums if they were not bright, and there shall be added to, and made a part of, the grade designation, preceding the name of the class or subclass, the word "Bright."

DISCOLORED GRAIN SORGHUMS

Definition .- Discolored grain sorghums shall be grain sorghums of any class or

subclass which are discolored, but which are not badly weathered.

Grades.—Discolored grain sorghums shall be graded and designated according to the grade requirements of the standards applicable to such grain sorghums if they were not discolored, and there shall be added to, and made a part of, the grade designation, the word "Discolored."

WEEVILY GRAIN SORGHUMS

Definition.—Weevily grain sorghums shall be grain sorghums which are infested

with live weevils or other insects injurious to stored grain.

Grades.—Weevily grain sorghums shall be graded and designated according to the grade requirements of the standards applicable to such grain sorghums if they were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

SMUTTY GRAIN SORGHUMS

Definition.—Smutty grain sorghums shall be grain sorghums which have the kernels covered with smut spores, or which contain a quantity of smut masses in

excess of a quantity equal to 10 masses in 50 grams of grain sorghums.

Grades.—Smutty grain sorghums shall be graded and designated according to the grade requirements of the standards applicable to such grain sorghums if they were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

DEFINITIONS

Basis of grade determinations.—Each determination of class, subclass, nongrain sorghums, total damage, heat damage, and inseparable stones and cinders, shall be upon the basis of the grain when free from dockage and when free from "cracked kernels, foreign material, and other grains."

All other determinations shall be upon the basis of the lot of grain as a whole. **Percentages.**—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or that ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Other grains.—Other grains shall include wheat, rye, oats, corn, barley, hullless barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Nongrain sorghums.—Nongrain sorghums shall include broomcorn, Sudan grass, Johnson grass, and cane seed.
Cracked kernels, foreign material, and other grains.—Cracked kernels, foreign material, and other grains, shall include kernels and pieces of kernels of grain sorghums, and all other matter except dockage that will pass through a metal sieve perforated with equilateral triangular perforations the inscribed circles of which are ½4 inch in diameter; also other grains and all other matter except grain sorghums and nongrain sorghums remaining on such sieve after screening.

Damaged kernels.—Damaged kernels shall be kernels and pieces of kernels of

grain sorghums, nongrain sorghums, and other grains which are heat damaged, sprouted, frosted, badly ground damaged, moldy, or otherwise materially

damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of grain sorghums, nongrain sorghums, and other grains which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the

31st day of March 1934.

[SEAL]

H. A. WALLACE, Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR FLAXSEED

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. Wallace, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for flaxseed, as hereinafter described, which shall become effective on the 1st day of August 1934:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR FLAXSEED 9

For the purposes of the official grain standards of the United States for flaxseed: Flaxseed.—Flaxseed shall be any grain which, before the removal of dockage, consists of 50 percent or more of flaxseed and not more than 20 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act.

Grades.—Flaxseed shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of these standards.

Flaxseed: Grade requirements for flaxseed

Grade No.	Minimum test weight per bushel	Maximum limits of damaged flaxseed
1 2 Sample grade	ments of either of the grades No. 1 or N seed; or which contains more than 11	20 percent. 30 percent. hich does not come within the require- 0.2; or which contains fire-damaged flax- percent of moisture; or which is musty, s any commercially objectionable foreign tly low quality.

DOCKAGE

Dockage shall include all matter other than flaxseed which is contained in the lot of grain as a whole; also undeveloped, shriveled, and small pieces of flaxseed removed with the dockage and which cannot be recovered by properly rescreening or recleaning.

The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the flaxseed including the dockage. The percentage of dockage so calculated, when equal to one-half percent or more, shall be stated in terms of half percent, whole percent, or whole and half percent, as the case may be. A fraction of a half percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.

DEFINITIONS

Basis of grade determinations.—Each determination of test weight, moisture, damage, and "fire damaged", shall be upon the basis of the grain after the removal of that part of the dockage which can be removed readily by the use of appropriate sieves and cleaning devices. All other determinations shall be upon the basis of the grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Damaged flaxseed.—Damaged flaxseed shall be seeds and pieces of seeds of flaxseed which are heat damaged, sprouted, frosted, badly ground damaged,

badly weather damaged, or otherwise materially damaged.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE, Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR MIXED GRAIN

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for Mixed Grain, as hereinafter described, which shall become effective on the 2d day of July 1934:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR MIXED GRAIN 10

For the purposes of the official grain standards of the United States for Mixed Grain:

Definition.—Mixed Grain shall be any mixture of those grains for which standards have been or hereafter may be established under the provisions of the United States Grain Standards Act, that does not come within the requirements of any of the standards for such grains, and that does not contain more than 50 percent of foreign material. Wild oats in Mixed Grain shall be classed as a grain.

Grades.—Mixed Grain shall be graded and designated either as "Mixed Grain" or as "Sample grade Mixed Grain", and according to the special grades when

applicable.

GRADE REQUIREMENTS

Mixed Grain (Grade) .- The grade "Mixed Grain" shall include all mixed grain which does not come within the specifications for Sample grade Mixed

Sample grade Mixed Grain.—The grade "Sample grade Mixed Grain" shall include all mixed grain which contains more than 16 percent of moisture, or more

¹⁰ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

than 15 percent of damaged kernels, or more than 3 percent of heat-damaged kernels; or which is musty, or sour, or heating, or hot; or which contains stones and/or cinders; or which has any commercially objectionable foreign odor except of smut or garlic; or which has a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.

GRADE DESIGNATIONS

The grade designation for Mixed Grain shall include, in the order named: (1) The words "Mixed Grain", or the words "Sample grade Mixed Grain", as the case may be;

(2) The name and percentage of each kind of grain, including wild oats, which constitutes 10 percent or more of the mixture, in the order of predominance; and (3) When applicable, the words "Other Grains", followed by a statement of the percentage of the combined quantity of those kinds of grain, including wild oats, each of which is present in a quantity less than 10 percent; and
(4) The words "Foreign Material", together with a statement of the percent-

age thereof.

All percentage statements shall be in terms of whole percent. A fraction of a percent shall be disregarded.

SPECIAL GRADES FOR MIXED GRAIN

TOUGH MIXED GRAIN

Definition.—Tough Mixed Grain shall be mixed grain which contains more

than 14.5 percent but not more than 16 percent of moisture.

Grades.—Tough Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough".

SMUTTY MIXED GRAIN

Definition.—Smutty Mixed Grain shall be (a) mixed grain in which wheat or rye predominates, and which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls of average size in 250 grams of mixed grain, (b) mixed grain in which oats predominate, and which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of mixed grain, or (c) any mixed grain which has the kernels covered with smut spores, or which contains smut masses in excess of 0.2 percent.

Grades.—Smutty Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

ERGOTY MIXED GRAIN

Definition.—Ergoty Mixed Grain shall be mixed grain which contains ergot in

excess of 0.3 percent.

Grades.—Ergoty Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

GARLICKY MIXED GRAIN

Definition.—Garlicky Mixed Grain shall be (a) mixed grain in which wheat or rye predominates, and which contains 2 or more green garlie bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of mixed grain; or (b) mixed grain in which oats or barley predominates, and which contains 4 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 500 grams of mixed grain.

Grades.—Garlicky Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not garlicky, and there shall be added to, and made a part of, the grade designation, the word "Garlicky."

WEEVILY MIXED GRAIN

Definition.—Weevily Mixed Grain shall be mixed grain which is infested with

live weevils or other insects injurious to stored grain.

Grades.—Weevily Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

BLIGHTED MIXED GRAIN

Definition.—Blighted Mixed Grain shall be all mixed grain in which barley predominates, and which, as a whole, contains more than 4 percent of barley

damaged or materially discolored by blight and/or mold.

Grades.—Blighted Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not blighted, and there shall be added to, and made a part of, the grade designation, the word "Blighted."

TREATED MIXED GRAIN

Definition.—Treated Mixed Grain shall be mixed grain which has been scoured, limed, washed, sulphured, or treated in such a manner that its true quality is not reflected by either the numerical grade or the Sample grade designation, alone.

Grades.—Treated Mixed Grain shall be graded and designated according to the

grade requirements of the standards applicable to such mixed grain if it were not treated, and there shall be added to, and made a part of, the grade designation, a statement indicating the kind of treatment.

Basis of grade determinations.—All determinations shall be on the basis of the grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and method of use thereof described in Bulletin No. 1375, issued by the United States Department of Agriculture, or that ascertained by any device and method which give equivalent results in the determination of moisture. In the determination of moisture by the method described in Department Bulletin No. 1375, the heating element shall be cut off when the thermometer shows a

the No. 13/5, the heating element shall be cut off when the thermometer shows a temperature specified for the grain which predominates in the mixture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

For its material beginning material and the state of the state of

Foreign material.—Foreign material shall include all matter other than grains for which standards have been established under the provisions of the United

States Grain Standards Act, but shall not include wild oats.

Damaged kernels.—Damaged kernels shall be all kernels and pieces of kernels of those grains for which standards have been established under the provisions of the United States Grain Standards Act, which are heat damaged, sprouted, frosted,

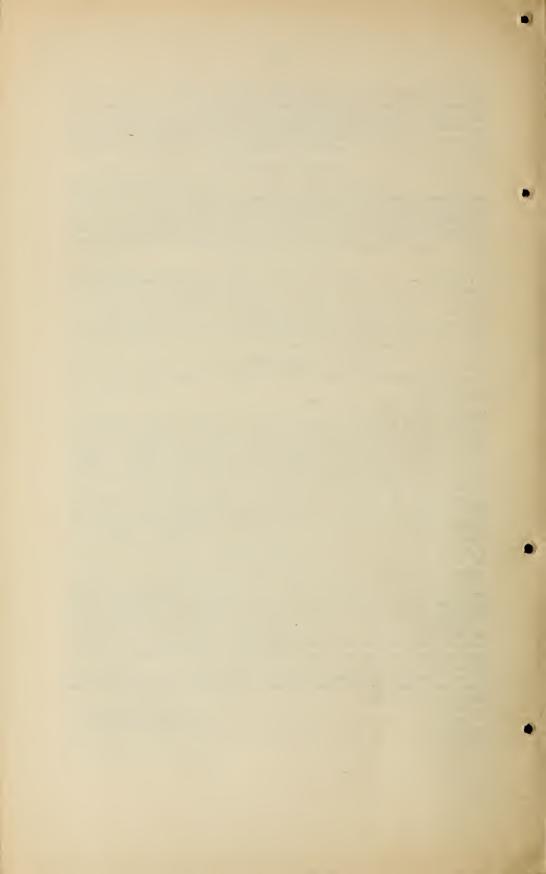
badly ground damaged, badly weather damaged, or otherwise materially damaged.

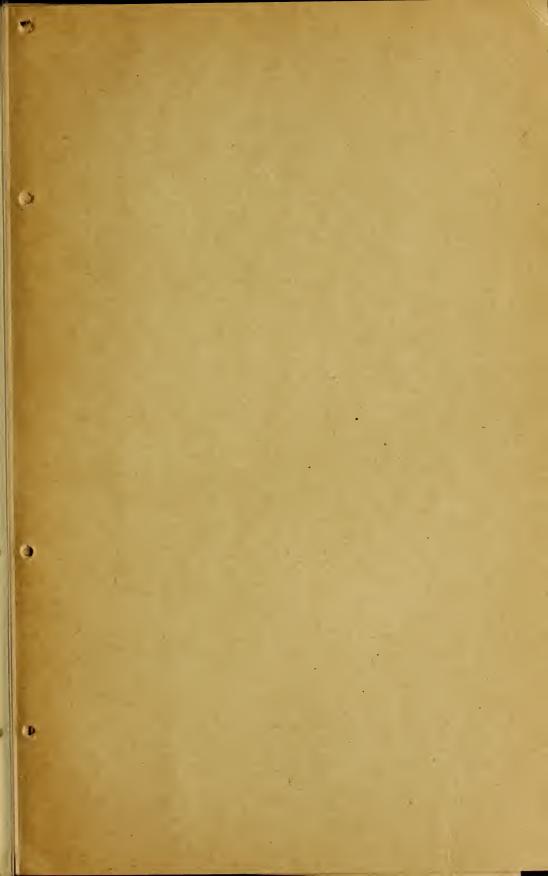
Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernel of those grains for which standards have been established under the provisions of the United States Grain Standards Act, which have been materially discolored and damaged by external heat or as a result of heating caused by

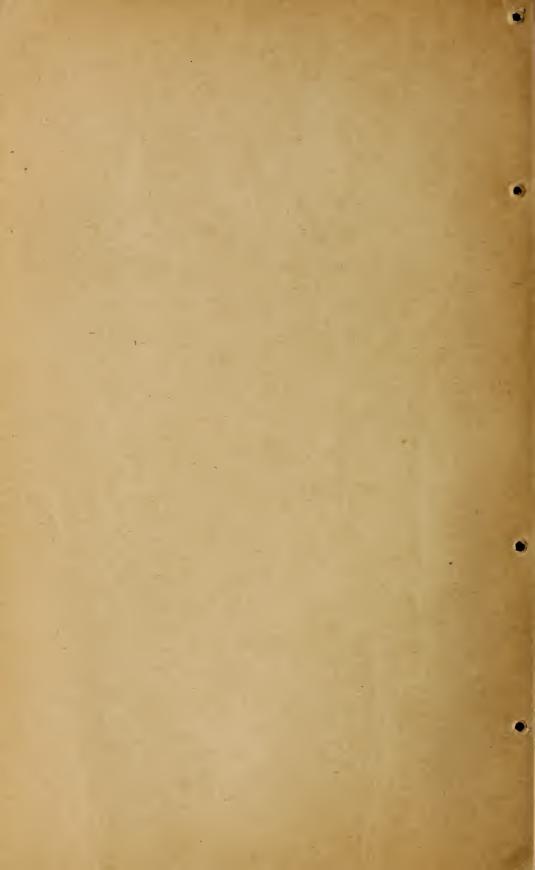
In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE, Secretary of Agriculture.







UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS

Service and Regulatory Announcements No. 144

OFFICIAL GRAIN STANDARDS

OF THE

UNITED STATES

FOR WHEAT, BARLEY, OATS, FEED OATS, MIXED FEED OATS, RYE, AND MIXED GRAIN, EFFECTIVE JULY 2, 1934; FOR FLAXSEED, EFFECTIVE AUGUST 1, 1934; AND FOR CORN AND GRAIN SORGHUMS, EFFECTIVE SEPTEMBER 1, 1934

Issued April 1934; reissued with amendments June 1934





United States Department of Agriculture

BUREAU OF AGRICULTURAL ECONOMICS

SERVICE AND REGULATORY ANNOUNCEMENTS NO. 144

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR WHEAT, BARLEY, OATS, FEED OATS, MIXED FEED OATS, RYE, AND MIXED GRAIN, EFFECTIVE JULY 2, 1934; FOR FLAXSEED, EFFECTIVE AUGUST 1, 1934; AND FOR CORN AND GRAIN SORGHUMS, EFFECTIVE SEPTEMBER 1, 1934

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BUREAU OF AGRICULTURAL ECONOMICS, Washington, D.C., March 30, 1934.

Hon. HENRY A. WALLACE, Secretary of Agriculture.

Sir: I have the honor to transmit, herewith, drafts of orders fixing, establishing, promulgating, and giving public notice of, the official grain standards of the United States for wheat, corn, oats, feed oats, mixed feed oats, rye, barley, grain sorghums, mixed grain, and flaxseed, under the United States Grain Standards Act of August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74). It is recommended that they be fixed, established, promulgated, and published as the official grain standards of the United States, pursuant to the authority conferred on you by said act, to be in force and effect on and after the date specified in each order, or until altered or modified hereafter by the Secretary of Agriculture.

The orders pertaining to wheat, corn, oats, feed oats, mixed feed oats, rye, grain sorghums, and barley supersede official grain standards of the United States now in effect for those grains. In the case of mixed grain and flaxseed, official grain standards of the United States have not been previously established and

promulgated.

It is desirable that the new standards become effective as nearly as possible at the beginning of the new crop movement for each grain, and the orders have been so drafted that the standards for wheat, oats, feed oats, mixed feed oats, rye, barley, and mixed grain, will become effective on July 2, 1934; the standards for flaxseed on August 1, 1934; and the standards for corn and grain sorghums on September 1, 1934.

Very respectfully,

NILS A. OLSEN, Chief of Bureau.

Approved:
SETH THOMAS,
Solicitor.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR WHEAT

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. Wallace, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for wheat, as hereinafter described, which shall become effective on the 2d day of July, 1934, and shall thereupon supersede the official grain standards of the United States for wheat, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR WHEAT 1

For the purposes of the official grain standards of the United States for wheat: Wheat.—Wheat shall be any grain which, before the removal of dockage, consists of 50 percent or more of wheat and not more than 10 percent of other consists of 50 percent or more of wheat and not more than 10 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act. The term wheat in these standards shall not include emmer, spelt, einkorn, Polish wheat, and poulard wheat. Classes.—Wheat shall be divided into seven classes, as follows: Class I, Hard Red Spring Wheat; Class II, Durum Wheat; Class III, Red Durum Wheat; Class IV, Hard Red Winter Wheat; Class V, Soft Red Winter Wheat; Class VI, White Wheat; and Class VII Mixed Wheat.

Grades.—Wheat shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of its appropriate class or subclass and according to the special grades when applicable.

class or subclass, and according to the special grades when applicable.

HARD RED SPRING WHEAT (CLASS I)

This class shall include all varieties of hard red spring wheat, and may include not more than 10 percent of wheats of other classes. This class shall be divided into three subclasses, as follows:

SUBCLASS (A) DARK NORTHERN SPRING

This subclass shall include wheat of the class Hard Red Spring Wheat consisting of 75 percent or more of dark, hard, and vitreous kernels. This subclass shall not include more than 10 percent of wheat of the variety Humpback.

SUBCLASS (B) NORTHERN SPRING

This subclass shall include wheat of the class Hard Red Spring Wheat consisting of more than 25 percent but less than 75 percent of dark, hard, and vitreous kernels. This subclass shall not include more than 10 percent of wheat of the variety Humpback.

SUBCLASS (C) RED SPRING

This subclass shall include wheat of the class Hard Red Spring Wheat consisting of not more than 25 percent of dark, hard, and vitreous kernels. This sub-class shall also include wheat of the class Hard Red Spring Wheat consisting of more than 10 percent of the variety Humpback.

¹ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

Class I, Hard Red Spring Wheat: Grade requirements for (a) Dark Northern Spring,
(b) Northern Spring, (c) Red Spring

		Maximum limits of—						
Grade No.	Mini- mum test weight	Damaged kernels (wheat and other grains)		Foreign material		Wheats of other classes		
	per bushel	Total	Heat- damaged	Total	Matter except other grains	Total	Durum and/or Red Durum	
1 Heavy '	or Norrequire or whice percent cinders comme which of	thern Spri ments of a ch contains t of cracked ; or which recally obj contains a requirement	ng, or Red ny of the gr s more tha l kernels; o is musty, o ectionable quantity of	I Spring, we rades from in 16 perce or which co or sour, or he foreign out is mut so g be applied	which does No. 1 Heavent of moist ntains insecuting, or lor eating, or lor eat that as	not come by to No. 5 cure, or mo parable sto hot; or whi of smut of ny one or n	Percent 2 2 3 5 10 ern Spring, within the, inclusive; ore than 10 ones and/or cich has any r garlic; or nore of the h is other-	

¹ Applies to each of the subclasses Dark Northern Spring, Northern Spring, and Red Spring.

DURUM WHEAT (CLASS II)

This class shall include all varieties of common durum wheat, and may include not more than 10 percent of wheats of other classes. This class shall be divided into three subclasses, as follows:

SUBCLASS (A) HARD AMBER DURUM

This subclass shall include wheat of the class Durum Wheat consisting of 75 percent or more of hard and vitreous kernels of amber color.

SUBCLASS (B) AMBER DURUM

This subclass shall include wheat of the class Durum Wheat consisting of 60 percent or more but less than 75 percent of hard and vitreous kernels of amber color.

SUBCLASS (C) DURUM

This subclass shall include wheat of the class Durum Wheat consisting of less than 60 percent of hard and vitreous kernels of amber color.

RED DURUM WHEAT (CLASS III)

This class shall include all varieties of Red Durum Wheat, and may include not more than 10 percent of wheats of other classes.

Class II, Durum Wheat, and Class III, Red Durum Wheat: Grade requirements for the subclasses (a) Hard Amber Durum, (b) Amber Durum, and (c) Durum, of the class Durum Wheat, and for the class Red Durum Wheat

		Maximum limits of—						
	Mini- mum test	Damaged kernels (wheat and other grains)		Foreign	material	Wheats of other classes		
Grade No.	weight per bushel	Total	Heat damaged	Total	Matter except other grains	Total	Soft Red Winter, White, and Red Durum, singly or combined 1	
1	Amber which of No. 1 to moistur insepar or hot; of smut one or	Durum, of does not contain the	or Durum, ome within oclusive; on than 10 per and/or cin as any cor or which ce	or wheat the requir which coercent of coercent of coercent ders; or when mercially contains a quirements	of the classements of contains more racked kern ich is must objectiona uantity of cannot be	s Red Du any of the ore than 1 nels; or wh sty, or sound ble foreign smut so gr	Percent 3 5 10 10 10 r Durum, or rum Wheat, grades from 6 percent of lich contains, or heating, odor except eat that any ecurately; or	

¹ These specifications do not apply to the class Red Durum Wheat, or to the subclass Durum. ² No. 1 Red Durum may contain 10 percent of wheats of other classes.

HARD RED WINTER WHEAT (CLASS IV)

This class shall include all varieties of Hard Red Winter Wheat, and may include not more than 10 per cent of wheats of other classes. This class shall be divided into three subclasses, as follows:

SUBCLASS (A) DARK HARD WINTER

This subclass shall include wheat of the class Hard Red Winter Wheat consisting of 75 percent or more of dark, hard, and vitreous kernels.

SUBCLASS (B) HARD WINTER

This subclass shall include wheat of the class Hard Red Winter Wheat consisting of more than 25 percent but less than 75 percent of dark, hard, and vitreous kernels.

SUBCLASS (C) YELLOW HARD WINTER

This subclass shall include wheat of the class Hard Red Winter Wheat consisting of not more than 25 percent of dark, hard, and vitreous kernels.

Class IV, Hard Red Winter Wheat: Grade requirements for (a) Dark Hard Winter, (b) Hard Winter, (c) Yellow Hard Winter

		Maximum limits of—					
Grade No.	Mini- mum test weight	Damaged kernels (wheat and other grains)		Foreign material		Wheats of other classes	
	per bushel	Total	Heat- damaged	Total	Matter except other grains	Total	Durum and/or Red Durum
1	or Har within clusive; than 10 and/or has an garlic; more of	d Winter the requir or which percent of cinders; or y commer or which of the grade	ements of contains no cracked k which is no contains a contains a	ow Hard any of the nore than ternels; or nusty, or ectionable quantity ents canno	Winter, we grades from 15.5 percent which control sour, or he foreign odd f smut so	which does om No. 1 to the of moist tains insepa ating, or had or except great that	Percent 1 2 3 10 ard Winter, 5 not come 10 No. 5, in- ure, or more rrable stones 0t; or which of smut or 2 any one or ly; or which

SOFT RED WINTER WHEAT (CLASS V)

This class shall include all varieties of soft red winter wheat and may include not more than 10 percent of wheats of other classes. This class shall be divided into two subclasses, as follows:

SUBCLASS (A) RED WINTER

This subclass shall include wheat of the class Soft Red Winter Wheat consisting of both light and dark colored kernels. This subclass shall not include more than 10 percent of soft red winter wheat grown west of the Great Plains area of the United States.

SUBCLASS (B) WESTERN RED

This subclass shall include wheat of the class Soft Red Winter Wheat consisting of more than 10 percent of wheat of this class grown west of the Great Plains area of the United States.

Class V, Soft Red Winter Wheat: Grade requirements for (a) Red Winter,
(b) Western Red

				Maximun	n limits of-	_	
Grade No.	Mini- mum test		l kernels and other	Foreign	material		s of other
	weight per bushel	Total	Heat- damaged	Total	Matter except other grains	Total	Durum and/or Red Durum
1	Red, w from N of mois insepar or hot; of smu any one	hich does to 1 to No. ture, or mo able stones or which it or garlic; or more o	not come w 5, inclusive re than 10 p and/or cin as any cor or which f the grade	vithin the re; or which percent of or whole of or whole of the contains a second con	requirement contains cracked ker bich is must objections quantity ents cannot	nts of any of more than enels; or what sty, or sour ble foreign of smut so	Percent 0.5 1.0 2.0 10.0 10.0 or Western of the grades 15.5 percent ich contains , or heating, odor except o great that accurately;

WHITE WHEAT (CLASS VI)

This class shall include all varieties of white wheat, whether winter or spring grown, and may include not more than 10 percent of wheats of other classes. This class shall be divided into four subclasses, as follows:

SUBCLASS (A) HARD WHITE

This subclass shall include all wheat of the class White Wheat consisting of 75 percent or more of hard (not soft and chalky) kernels. This subclass shall not include more than 10 percent of Sonora wheat or wheat of the white club varieties, either singly or in any combination.

SUBCLASS (B) SOFT WHITE

This subclass shall include wheat of the class White Wheat consisting of less than 75 percent of hard (not soft and chalky) kernels. This subclass shall not include more than 10 percent of Sonora wheat or wheat of the white club varieties, either singly or in any combination.

SUBCLASS (C) WHITE CLUB

This subclass shall include wheat of the class White Wheat consisting of Sonora wheat or wheat of the white club varieties, either singly or in any combination. This subclass shall not include more than 10 percent of common white wheat other than Sonora, either singly or in any combination.

SUBCLASS (D) WESTERN WHITE

This subclass shall include wheat of the class White Wheat which contains more than 10 percent of Sonora wheat or wheat of the white club varieties, either singly or in any combination, and which also contains more than 10 percent of common white wheat other than Sonora.

Class VI, White Wheat: Grade requirements for (a) Hard White, (b) Soft White, (c) White Club, (d) Western White

		Maximum limits of—						
Grade No.	Mini- mum test weight	Damaged kernels (wheat and other grains)		Foreign	Foreign material		Wheats of other classes	
	per bushel	Total	Heat- damaged	Total	Matter except other grains	Total	Durum and/or Red Durum	
1	White, require contain cracked or whice mercial contain require	or White Coments of and a more that kernels; the is must; by objections a quanti	Club, or We my of the gran 15.5 per or which y, or sour, onable foreity of smut not be ap	estern White ades from cent of mo- contains in or heating ign odor ex- so great t	te, which do No. 1 to No isture, or n nseparable g, or hot; or cept of su hat any on	oes not com o. 5, inclusi nore than i stones and or which h nut or garl te or more	Percent 0.5 1.0 2.0 10.0 10.0 inte, or Soft the weight of the year of the which the weight of the year of year of year of year.	

MIXED WHEAT (CLASS VII)

This class shall include all mixtures of wheat not provided for in the classes from I to VI, inclusive.

Grade requirements and designations.—Mixed Wheat shall be graded according to the numerical and Sample grade requirements of the class of wheat which predominates in the mixture, except that the grade specifications for the factor

"wheats of other classes" and the grade specifications for "No. 1 Heavy" in the standards for hard red spring wheat, shall be disregarded.

The grade designation for Mixed Wheat shall be stated as provided in either

paragraph (a) or (b) of this section:

(a) Except as specified in paragraph (b) of this section, the grade designation for Mixed Wheat shall include successively, in the order named, (1) the number of the grade or the words "Sample grade", as the case may be, (2) the words "Mixed Wheat", and (3) the name and approximate percentage of each class of wheat which constitutes more than 10 percent of the mixture in the order of its predominance; but if only one class exceeds 10 percent of the mixture, the name and approximate percentage of that class shall be included in the grade designa-

tion, followed by the name and approximate percentage of at least one other class.

(b) Mixed Durum.—Mixed Durum shall be mixed wheat consisting of 70 percent or more of common durum, and may contain not more than 10 percent of Red Durum and not more than 5 percent of soft red winter and/or white wheat. The grade designation for Mixed Durum shall include successively, in the order named, (1) the number of the grade or the words "Sample grade", as the case

may be, and (2) the words "Mixed Durum."

DOCKAGE

Dockage includes weed seeds, weed stems, chaff, straw, grain other than wheat, sand, dirt, and any other foreign material, which can be removed readily from the wheat by the use of appropriate sieves and cleaning devices; also undeveloped, shriveled, and small pieces of wheat kernels removed in properly separating the foreign material, and which cannot be recovered by properly rescreening or recleaning.

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage. The percentage of dockage so calculated, when equal to 1 percent or more, shall be stated in terms of whole percent, and when less than 1 percent shall not be stated. A fraction of a percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.

SPECIAL GRADES FOR WHEAT

TOUGH WHEAT

Definition.—Tough wheat shall be (a) wheat of any of the classes Hard Red Winter Wheat, Soft Red Winter Wheat, or White Wheat, or of the class Mixed Wheat in which wheat of any one of the classes Hard Red Winter Wheat, or Soft Red Winter Wheat, or White Wheat, predominates, which contains more than 14 percent but not more than 15.5 percent of moisture, and (b) wheat of any of the classes Hard Red Spring Wheat, or Durum Wheat, or Red Durum Wheat, or of the class Mixed Wheat in which wheat of any one of the classes Hard Red Spring Wheat, or Durum Wheat, or Red Durum Wheat, predominates, which contains more than 14.5 percent but not more than 16 percent of moisture.

Grades.—Tough wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not tough, and there shall be added to, and made a part of, the grade designation, the word

"Tough."

SMUTTY WHEAT (SEE AMENDMENTS, P. 32)

Definition.—Smutty wheat shall be wheat which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls of average size in 250 grams of wheat.

Smutty wheat shall be graded and designated according to the method described

either in paragraph (a) or paragraph (b) of this section.
(a) Smut dockage.—Before the determination of smut dockage as provided in this paragraph, the wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not smutty. The smut shall be removed by scouring and the loss in weight of the wheat caused by the removal of the smut shall be calculated in terms of percentage based on the total weight of the grain when free from dockage. The percentage so calculated shall be stated in terms of half percent, whole percent, or whole and half percent, as the case may be. A fraction of a half percent shall be disregarded. The percentage of the smut dockage, so calculated and stated, shall be added to the grade designation, preceding the statement of dockage, if any.

(b) "Light Smutty" and "Smutty."—Smutty wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not smutty; and
(1) In the case of smutty wheat which has an unmistakable odor of smut, or

which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls but not in excess of a quantity equal to 30 balls of average size in 250 grams of wheat, there shall be added to, and made a part of, the grade designation, the words "Light Smutty"; and

(2) In the case of smutty wheat which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of wheat, there shall be added to, and made a part of, the grade designation, the word "Smutty."

GARLICKY WHEAT

Definition.—Garlicky wheat shall be wheat which contains two or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of wheat.

Grades.—Garlicky wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not

garlicky; and

(1) In the case of garlicky wheat which contains two or more but not more than six green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of wheat, there shall be added to, and made a part of, the grade designation, the words "Light Garlicky"; and
(2) In the case of garlicky wheat which contains more than six green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams

of wheat, there shall be added to, and made a part of, the grade designation, the

word "Garlicky."

WEEVILY WHEAT

Definition.—Weevily wheat shall be wheat which is infested with live weevils

or other insects injurious to stored grain.

Grades.—Weevily wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

ERGOTY WHEAT

Definition.—Ergoty wheat shall be wheat which contains ergot in excess of

0.3 percent.

Grades.—Ergoty wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

TREATED WHEAT

Definition.—Treated wheat shall be wheat which has been scoured, limed, washed, sulphured, or treated in such a manner that its true quality is not reflected by either the numerical grade or the Sample grade designation, alone.

Grades.—Treated wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not treated, and there shall be added to, and made a part of, the grade designation, a statement indicating the kind of treatment.

DEFINITIONS

Basis of grade determinations.—Each determination of dockage, temperature, odor, garlic, and live weevils or other insects injurious to stored grain, shall be upon the basis of the grain as a whole. All other determinations shall be upon the basis of the grain when free from dockage.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter other than wheat which is not separated from the wheat in the proper determination of dockage,

except that smut balls shall not be considered as foreign material.

Other grains.—Other grains shall include rye, oats, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Damaged kernels.—Damaged kernels shall be kernels and pieces of kernels of wheat and other grains which are heat damaged, sprouted, frosted, badly ground

damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of wheat and other grains which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

Cracked kernels.—Cracked kernels shall be broken kernels of wheat and other

grains remaining after the removal of dockage.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE. Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR CORN

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. Wallace, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for corn, as hereinafter described, which shall become effective on the 1st day of September 1934, and shall thereupon supersede the official grain standards of the United States for corn, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR CORN 2

For the purposes of the official grain standards of the United States for corn (maize):

Corn.—Corn shall be any grain which consists of 50 percent or more of shelled corn of the dent or flint varieties, and may contain not more than 10 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act.

Classes.—Corn shall be divided into three classes, as follows: Class I, Yellow

Corn; Class II, White Corn; and Class III, Mixed Corn.

YELLOW CORN (CLASS I)

This class shall include yellow corn, and may include not more than 5 percent of corn of other colors. A slight tinge of red on kernels of corn otherwise yellow shall not affect their classification as Yellow Corn.

WHITE CORN (CLASS II)

This class shall include white corn, and may include not more than 2 percent of corn of other colors. A slight tinge of light straw color or of pink on kernels of corn otherwise white shall not affect their classification as White Corn.

² The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

MIXED CORN (CLASS III)

This class shall consist of corn of various colors that does not meet the color requirements for either of the classes Yellow Corn or White Corn. White-capped yellow kernels shall be classified as Mixed Corn.

Grades.—Corn shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of its appropriate class, and according to the special grades when applicable.

Corn: Grade requirements for Yellow Corn, White Corn, and Mixed Corn

		Maximum limits of—				
Grade No.	Minimum test weight per bushel	Moisture	Cracked corn and	Damaged kernels (corn and other grains)		
			foreign material	Total	Heat- damaged	
1	or White in the req 5, inclusive which is any comm	Corn, or Mix uirements of ve; or which musty, or so nercially obj	Percent 2 3 4 5 7 iude corn of the go contains st ucontains st ucontains of the go contains	rades from Nones and/or or hot; or or or or or or; or or; or or; or or or; or	come with- lo. 1 to No. cinders; or which has	

SPECIAL GRADES FOR CORN

FLINT CORN

Definition.—Flint corn shall be corn of any class which consists of more than

25 percent of flint corn.

Grades.—Flint corn shall be graded and designated according to the grade requirements of the standards applicable to such corn if it were not flint corn, and the word "Flint" shall be added to, and made a part of, the grade designation, immediately following the word Yellow, or White, or Mixed, as the case may be.

WEEVILY CORN

Definition.—Weevily corn shall be corn that is infested with live weevils or

other insects injurious to stored grain.

Grades.—Weevily corn shall be graded and designated according to the grade requirements of the standards applicable to such corn if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

DEFINITIONS

Basis of grade determinations.—Each determination of class, variety, damage, and heat damage, shall be upon the basis of the grain after the removal of the cracked corn and foreign material. All other determinations shall be upon the basis of the grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Cracked corn and foreign material.—Cracked corn and foreign material shall include kernels and pieces of kernels of corn and all matter other than corn which will pass through a No. 12 sieve, and all matter other than corn remaining on

No. 12 sieve.—A metal sieve perforated with round holes ½,4 inch in diameter.

Other grains.—Other grains shall include wheat, rye, oats, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, sweet corn, pop corn, and soybeans.

Damaged kernels.—Damaged kernels shall be kernels and pieces of kernels of

corn and other grains which are heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of corn and other grains which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE, Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR BARLEY

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for barley, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for barley, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR BARLEY 3

For the purposes of the official grain standards of the United States for bar'ey: Barley.—Barley shall be any grain which, before the removal of dockage, consists of 50 percent or more of barley, and may contain not more than 25 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act. The term "barley" in these standards shall not include hull-less barley.

Classes.—Barley shall be divided into four classes, as follows: Class I, Barley;

Class II, Black Barley; Class III, Western Barley; and Class IV, Mixed Barley.

Grades.—Barley shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of its appropriate class or subclass, and according to the special grades when applicable.

BARLEY (CLASS I)

This class shall include all white (glumes) barley grown east of the Rocky Mountains and may include not more than 10 percent of barley of other classes. This class shall be divided into two subclasses, as follows:

SUBCLASS (A) MALTING BARLEY

This subclass shall include 6-rowed barley of the class Barley (Class I) which meets the requirements of grades Nos. 1 to 3, inclusive, which, after the removal of dockage, contains not more than 5 percent of 2-rowed and/or other types or varieties of barley of unsuitable malting type such as Trebi and Black; which contains not more than 15 percent of barley and other matter that will pass through a 20-gage metal sieve with slotted perforations 0.076 (4%/64) of an inch wide and ¾ of an inch long; which contains not more than 5 percent of damaged barley; and shall not include Bleached barley. Barley of this subclass shall contain 75 percent or more of mellow barley kernels which kernels are not en contain 75 percent or more of mellow barley kernels which kernels are not, en masse, semi-steely.

The specifications of these standards shall not excuse failure to comply with the provisions of the Food

SUBCLASS (B) BARLEY

This subclass shall include all barley of the class Barley which does not meet the requirements of subclass (A) Malting Barley.

BLACK BARLEY (CLASS II)

This class shall include all varieties of black (glumes) barley grown anywhere in the United States, and may include not more than 10 percent of barley of other classes.

Class I, Barley, and Class II, Black Barley: Grade requirements for subclass (a)
Malting Barley and subclass (b) Barley of the class Barley, and for the class Black Barley

	Minimum	limits of—	Maximum limits of—				
Grade No.	Test weight per bushel	Sound barley ¹	Heat-damaged kernels (barley, other grains, and wild oats)	Foreign material	Broken kernels	Black barley ²	
1 8 2 8 3 8 4 4 5 5 5 Sample grade	Barley, v grades fro of moistu is musty, foreign of great tha	which does not not not 1 to not not 1 to not not not not not not not not not	Percent 0.1 2 5 1.0 3.0 ude barley of the ot come within o. 5, inclusive; or contains insepa g, or hot; or whic smut or garlic; or more of the gris otherwise of di	the grade rec which conta rable stones th has any co which conta rade requires	quirements of ains more that and/or cinder mmercially of ains a quantity nents canno	of any of the in 16 percent ers; or which objectionable by of smut so	

¹ Any barley in grade No. 1 that does not come within the provisions of the special grade Blighted, may contain not more than 2 percent of blight-damaged barley; and barley in any grade from No. 2 to Sample grade, inclusive, that does not come within the provisions of the special grade Blighted, may contain not more than 4 percent of blight-damaged barley. Any barley containing more than 4 percent of blight-damaged barleys. Any barley containing more than 4 percent of blight-damaged barley shall be graded No. 1, No. 2, No. 3, No. 4, No. 5, or Sample grade, Blighted, as the case may be as provided in the specifications for Blighted barley.
² These specifications do not apply to the class Black Barley.
² See special requirements for subclass (a) Malting Barley.
⁴ Barley that is badly stained or materially weathered, shall not be graded higher than No. 4.

WESTERN BARLEY (CLASS III)

This class shall include white (glumes) barley grown west of the Great Plains area of the United States, and may include not more than 10 percent of barley of other classes.

Class III, Western Barley: Grade requirements for Western Barley

			-					
	Minimum	Maximum limits of—						
Grade No.	limits of sound barley	Heat-damaged kernels (barley, other grains, and wild oats)	Wild oats	Foreign material	Broken kernels	Black barley		
13	come wit inclusive contains which is objection tity of sn be applie of a char	Percent 0.1 2.2 3.5 6.1 0.0 de shall include hin the grade req. or which continus parable ado musty, or sour, a ble foreign odor aut so great that daccurately; or the daccurately acter and in a q or feeding purpos	uirements of hins more the be, stones, as or heating, or except of similarly one or me which conti- uantity suffi	any of the g an 15 percer and cinders, thot; or whi at or garlie; o hore of the gr ains the seed cient to caus	rades from N nt of moistur singly or ce ch has any c r which cont ade requiren ls of wild be se the grain	o. 1 to No. 5, re; or which ombined; or ommercially ains a quantents cannot come grasses to be of low		

MIXED BARLEY (CLASS IV)

This class shall be any mixture of barley not provided for in the classes from I to III, inclusive.

Grade requirements and designations. - Mixed Barley shall be graded according to the grade requirements of either (1) the subclass Barley of the class Barley, or (2) the class Black Barley, or (3) the class Western Barley, according to which class of barley predominates in the mixture, except that all grade specifications as to the maximum percentages of black barley shall be disregarded.

The grade designation for Mixed Barley shall include successively, in the order hamed, the number of the grade or the words "Sample grade", as the case may be; the words "Mixed Barley", followed by the name and approximate percentage of each class of barley which constitutes 10 percent or more of the mixture in the order of its predominance, but if only one class exceeds 10 percent of the mixture, the name and approximate percentage of that class shall be included in the grade designation, followed by the name and approximate percentage of at least one other class. For Mixed Barley, in which barley of the class Western least one other class. For Mixed Barley, in which barley of the class Western Barley predominates, the grade designation shall include a statement of the test weight per bushel immediately following the names and percentages of the classes composing the mixture.

DOCKAGE

Dockage in barley shall be determined according to the method described in

paragraph (a), or paragraph (b), or paragraph (c), of this section.

(a) In the case of Barley (Class I), and Black Barley (Class II), dockage includes all matter which can be removed from the barley by the use of a metal sieve perforated with equilateral triangular perforations the inscribed circles of

which are 5/64 inch in diameter.
(b) In the case of Western Barley (Class III), dockage includes weed seeds, weed stems, chaff, straw, grain other than barley, sand, dirt, and any material other than barley, which can be removed readily from the barley by the use of appropriate sieves and cleaning devices; also undeveloped, shriveled, and small pieces of barley kernels removed in properly separating the foreign material and which cannot be recovered by properly rescreening or recleaning.

(c) In the case of Mixed Barley (Class IV), the dockage determination shall

be made in accordance with the specifications given in paragraph (a) when barley, either of the class Barley (Class I) or barley of the class Black Barley (Class II) predominates in the mixture, or in accordance with the specifications given in paragraph (b) when barley of the class Western Barley (Class III) predominates

in the mixture.

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage. The percentage of dockage, so calculated, when equal to 1 percent or more, shall be stated in terms of whole percent, and when less than 1 percent shall not be stated. A fraction of a percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.

SPECIAL GRADES FOR BARLEY

TEST WEIGHT OF WESTERN BARLEY

Grades for test weight of Western Barley.—For barley of the class Western Barley, the test weight per bushel in terms of whole pounds shall be added to, and made a part of, the grade designation, following the name of the class. fraction of a pound shall be disregarded.

TWO-ROWED BARLEY

Definition.—Two-rowed barley shall consist of 2-rowed barley of the subclass Barley of the class Barley, or of the class Western Barley, and may contain not

more than 10 percent of barley of other varieties.

Grades.—Two-rowed barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not 2rowed, and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the word "Two-rowed."

TOUGH BARLEY

Definition.—Tough barley shall be (a) barley of either of the classes Barley or Black Barley, or of the class Mixed Barley in which barley of either one of the classes Barley or Black Barley predominates, which contains more than 14.5 percent but not more than 16 percent of moisture, and (b) barley of the class Western Barley, or of the class Mixed Barley in which barley of the class Western Barley predominates, which contains more than 13.5 percent but not more than 15 percent of moisture.

Grades.—Tough barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not tough, and there shall be added to, and made a part of, the grade designation, the word

"Tough."

BRIGHT WESTERN BARLEY

Definition.—Bright Western barley shall be barley of the class Western Barley,

except Bleached barley, that is of good natural color.

Grades.—Bright Western barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not bright, and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the word "Bright."

STAINED WESTERN BARLEY

Definition.—Stained Western barley shall be barley of the class Western Barley, except Bleached barley, that is badly stained, or weathered.

Grades.—Stained Western barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not stained, and there shall be added to, and made a part of, the grade designation, the word "Stained."

BLIGHTED BARLEY

Definition.—Blighted barley shall be all barley which contains more than 4 percent of barley damaged or materially discolored by blight and/or mold.

Grades.—Blighted barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not blighted, and there shall be added to, and made a part of, the grade designation, the word "Blighted."

SMUTTY BARLEY

Definition.—Smutty barley shall be barley which has the kernels covered with

smut spores, or which contains smut masses in excess of 0.2 percent.

Grades.—Smutty barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

GARLICKY BARLEY

Definition.—Garlicky barley shall be barley which contains 3 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 500

grams of barley.

Grades.—Garlicky barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not garlicky, and there shall be added to, and made a part of, the grade designation, the word "Garlicky."

WEEVILY BARLEY

Definition.—Weevily barley shall be barley which is infested with live weevils

or other insects injurious to stored grain.

Grades.—Weevily barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

ERGOTY BARLEY

Definition.—Ergoty barley shall be barley which contains ergot in excess of

0.3 percent.

Grades.—Ergoty barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

BLEACHED BARLEY

Definition.—Bleached barley shall be barley which, in whole or in part, has

been treated by the use of sulphurous acid or any other bleaching agent.

Grades.—Bleached barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not bleached, and there shall be added to, and made a part of, the grade designation, the word "Bleached."

DEFINITIONS

Basis of grade determinations.—Each determination of dockage, temperature, odor, garlic, and live weevils or other insects injurious to stored grain, shall be upon the basis of the grain as a whole. All other determinations shall be upon the basis of the grain when free from dockage.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel, as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter other than barley, except other grains, wild oats, and smut masses, which is not separated from the

barley in the proper determination of dockage.

Other grains.—Other grains shall include wheat, rve, oats, corn, grain sorghums, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat,

cultivated buckwheat, and soybeans.

Sound barley.—Sound barley shall be kernels and pieces of kernels of barley remaining after the removal of dockage, which are not damaged or materially discolored by blight and/or mold, which are not heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of

kernels of barley, other grains, and wild oats, which have been materially discolored and damaged by external heat or as a result of heating caused by fer-

mentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE, Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR OATS

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. Wallace, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for oats, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for oats, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR OATS '

For the purposes of the official grain standards of the United States for oats: Oats.—Oats shall be any grain which consists of 80 percent or more of culti-

vated oats. Oats may contain not more than 10 percent of wild oats.

Classes.—Oats shall be divided into five classes as follows: Class I, White Oats;
Class II, Red Oats; Class III, Gray Oats; Class IV, Black Oats; and Class V,
Mixed Oats. For the purpose of this classification, the characteristics of each class, except Mixed Oats, shall be based on color characteristics; White Oats shall include yellow oats; and tinges of white, brown, or black, on the kernels of any red oats variety shall not affect their classification as red oats. Oats of any class except Mixed Oats may include not more than 10 percent of cultivated oats of other classes. Mixed Oats shall be any mixture of oats which does not meet the requirements for any one of the classes White Oats, Red Oats, Gray Oats, or Black Oats.

Grades.—Oats shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of their appropriate

class, and according to the special grades when applicable.

Oats: Grade requirements for the classes White Oats, Red Oats, Gray Oats, Black Oats, and Mixed Oats

	Minimum	limits of—	Maximum limits of—			
Grade No.		Sound cul- tivated oats	Heat-damaged kernels (oats, other grains, and wild oats)	Foreign material	Wild oats	
1 1 2 2 3 3 3 4 4 Sample grade	Oats, Rewhich do grades from than 16 properties of which except of grasses of grain to	ed Oats, Gra o not come your No. 1 to percent of moor which are have any community a character a character of the of low que	Percent 0.1 3 1.0 3.0 ude oats of any oats, Black within the requi No. 4, inclusive; bisture; or which e musty, or sou commercially obje; or which cont and in a quantity allity for feeding	Oats, or Marements of a or which con a contain sto ir, or heatin ectionable for aim seeds of way sufficient to	ixed Oats, any of the ntain more nes and/or g, or hot; reign odor vild brome o cause the	

¹ The oats in grade No. 1 White Oats may contain not more than 5 percent of oats of other classes, of which not more than 3 percent may be black cultivated oats.

² The oats in grade No. 2 White Oats may contain not more than 5 percent of black cultivated oats.

³ Oats that are slightly weathered shall not be graded higher than No. 3.

⁴ Oats that are badly stained or materially weathered shall not be graded higher than No. 4.

SPECIAL GRADES FOR OATS

TOUGH OATS

Definition.—Tough oats shall be oats which contain more than 14.5 percent

but not more than 16 percent of moisture.

Grades.—Tough oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough."

HEAVY OATS

Definition.—Heavy oats shall be oats which have a test weight per bushel of

35 pounds or more but less than 38 pounds.

Grades.—Heavy oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not "heavy", and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the word "Heavy."

⁴ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

EXTRA HEAVY OATS

Definition .- Extra Heavy oats shall be oats which have a test weight per

bushel of 38 pounds or more.

Grades.—Extra Heavy oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not "extra heavy", and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the words "Extra Heavy".

BRIGHT OATS

Definition.—Bright oats shall be oats, except Bleached oats, that are of good

natural color.

Grades.—Bright oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not bright, and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the word "Bright."

CEREAL OATS

Definition.—Cereal oats shall be any oats, whether sized, clipped, or natural, which contain more than 20 percent of oats and/or other matter that will pass through a 20-gauge metal sieve with slotted perforations 0.064 inch wide by 36 inch long.

% inch long.

Grades.—Cereal oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not "cereal" oats, and there shall be added to, and made a part of, the grade designation, the

word "Cereal."

BLEACHED OATS

Definition.—Bleached oats shall be oats which, in whole or in part, have been

treated by the use of sulphurous acid or any other bleaching agent.

Grades.—Bleached oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not bleached, and there shall be added to, and made a part of, the grade designation, the word "Bleached."

WEEVILY OATS

Definition.—Weevily oats shall be oats which are infested with live weevils or

other insects injurious to stored grain.

Grades.—Weevily oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

SMUTTY OATS

Definition.—Smutty oats shall be oats which contain balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250

grams of oats.

Grades.—Smutty oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

ERGOTY OATS

Definition.—Ergoty oats shall be oats which contain ergot in excess of 0.3

percent.

Grades.—Ergoty oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

GARLICKY OATS

Definition.—Garlicky oats shall be oats which contain 4 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 500 grams of oats.

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Grades.—Garlicky oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not garlicky and there shall be added to, and made a part of, the grade designation, the word "Garlicky."

DEFINITIONS

Basis of grade determinations.—All determinations shall be upon the basis of the lot of grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter except kernels and pieces of kernels of cultivated oats, other grains, and wild oats; but shall

include oats clippings and detached hulls.

Other grains.—Other grains shall include wheat, rye, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Sound cultivated oats.—Sound cultivated oats shall be all kernels and pieces of kernels of cultivated oats which are not heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of cultivated oats, other grains, and wild oats, which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE, Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR FEED OATS

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for Feed Oats, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for Feed Oats, as previously promulgated under said sections. of the United States for Feed Oats, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR FEED OATS 5

For the purposes of the official grain standards of the United States for Feed

Feed Oats.—Feed Oats shall be any grain which consists of either (a) 30 percent or more but less than 80 percent of cultivated oats, but not less than 65 percent of cultivated and wild oats combined, or (b) 80 percent or more of cultivated oats and more than 10 percent of wild oats. Feed Oats may contain not more than 25 percent of other grains, and may contain not more than 10 percent of foreign material, which 10 percent may include not more than 5 percent of fine seeds.

Grades.—Feed Oats shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of these

standards, and according to the special grades when applicable.

⁵ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

Feed Oats: Grade requirements for Feed Oats

	Minimum	limits of—	Maximum limits of—			
Grade No.	Test weight per	Cultivated	Heat-damaged kernels (oats,	Foreign material		
	bushel	oats	wild oats, and other grains)	Total	Fine seeds	
1 2 3 ¹ Sample grade.	the requi clusive; o which are commerc or which ter and is	rements of a or which con- or musty or so ially objection contain see on a quantity or feeding pur	Percent 2 4 6 ude feed oats will ny of the grades tain more than 1 our, or heating, onable foreign odd dis of wild brot sufficient to caurposes; or which a	from No. 1 6 percent of r hot; or whi r except of sn ne grasses of se the grain	to No. 3, in- moisture; or ch have any nut or garlic; of a charac- to be of low	

¹ Feed Oats that are badly stained or materially weathered, shall not be graded higher than No. 3.

SPECIAL GRADES FOR FEED OATS

TOUGH FEED OATS

Definition.—Tough Feed Oats shall be feed oats which contain more than 14.5 percent but not more than 16 percent of moisture.

Grades.—Tough Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough."

BLEACHED FEED OATS

Definition.—Bleached Feed Oats shall be feed oats which, in whole or in part, have been treated by the use of sulphurous acid or any other bleaching agent.

Grades.—Bleached Feed Oats shall be graded and designated according to the

grade requirements of the standards applicable to such feed oats if they were not bleached, and there shall be added to, and made a part of, the grade designation, the word "Bleached".

WEEVILY FEED OATS

Definition.—Weevily Feed Oats shall be feed oats which are infested with

live weevils or other insects injurious to stored grain.

Grades.—Weevily Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

SMUTTY FEED OATS

Definition.—Smutty Feed Oats shall be feed oats which contain balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of feed oats.

Grades.—Smutty Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

ERGOTY FEED OATS

Definition.—Ergoty Feed Oats shall be feed oats which contain ergot in excess

Grades.—Ergoty Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

DEFINITIONS

Basis of grade determinations.—All determinations shall be upon the basis of the lot of grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter except kernels and pieces of kernels of cultivated oats, other grains, and wild oats; but shall include

oats clippings and detached hulls.

Fine seeds.—Fine seeds shall include all matter which can be removed from feed oats by the use of a metal sieve perforated with equilateral triangular per-

orations the inscribed circles of which are 5%4 inch in diameter.

Other grains.—Other grains shall include wheat, rye, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated bushwheat, and surhears.

wheat, cultivated buckwheat, and soybeans.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of cultivated oats, wild oats, and other grains, which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE, Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR MIXED FEED OATS

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, chap. 3, sec. 74), I, H. A. Wallace, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for Mixed Feed Oats, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for Mixed Feed Oats, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR MIXED FEED OATS

For the purposes of the official grain standards of the United States for Mixed

Feed Oats:

Mixed Feed Oats.—Mixed Feed Oats shall be any grain which consists of less than 30 percent of cultivated oats, but either (a) not less than 65 percent of cultivated and wild oats combined, or (b) not less than 65 percent of wild oats; may contain not more than 25 percent of other grains; and may contain not more than 10 percent of foreign material, which 10 percent may include not more than 5 percent of fine seeds.

Grades.-Mixed Feed Oats shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of these

standards, and according to the special grades when applicable.

⁶ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

Mixed Feed Oats: Grade requirements for Mixed Feed Oats

		Maximum limits of—				
Grade No.	Minimum test weight per bushel	Heat-damaged kernels (oats,	Foreign material			
		wild oats, and other grains)	Total	Fine seeds		
1	Pounds 32 29	Percent 2	Percent 5	Percent 2		
Sample grade	26	de shall include	mixed feed or	ats which do		
	Sample grade shall include mixed feed oats whi not come within the requirements of any of grades from No. 1 to No. 3, inclusive; or which tain more than 16 percent of moisture; or vare musty, or sour, or heating, or hot; or vhave any commercially objectionable foreign except of smut or garlic; or which contain see wild brome grasses of a character and in a que sufficient to cause the grain to be of low qualifeeding purposes; or which are otherwise of tinctly low quality.					

¹ Mixed Feed Oats that are badly stained or materially weathered, shall not be graded higher than No. 3.

SPECIAL GRADES FOR MIXED FEED OATS

TOUGH MIXED FEED OATS

Definition.—Tough Mixed Feed Oats shall be mixed feed oats which contain

more than 14.5 percent but not more than 16 percent of moisture.

Grades.-Tough Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough."

BLEACHED MIXED FEED OATS

Definition.—Bleached Mixed Feed Oats shall be mixed feed oats which, in whole or in part, have been treated by the use of sulphurous acid or any other

bleaching agent.

Grades.—Bleached Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not bleached, and there shall be added to, and made a part of, the grade designation, the word "Bleached."

WEEVILY MIXED FEED OATS

Definition.—Weevily Mixed Feed Oats shall be mixed feed oats which are infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

SMUTTY MIXED FEED OATS

Definition.—Smutty Mixed Feed Oats shall be mixed feed oats which contain balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of mixed feed oats.

Grades.—Smutty Mixed Feed Oats shall be graded and designated according to the contain of the standard applicable to the size of feed oats.

to the grade requirements of the standards applicable to such mixed feed oats if they were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

ERGOTY MIXED FEED OATS

Definition.—Ergoty Mixed Feed Oats shall be mixed feed oats which contain ergot in excess of 0.3 percent.

Grades.—Ergoty Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

DEFINITIONS

Basis of grade determinations.—All determinations shall be upon the basis of the lot of grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter except kernels and pieces of kernels of cultivated oats, other grains, and wild oats; and shall include

oats clippings and detached hulls.

Fine seeds.—Fine seeds shall include all matter which can be removed from Mixed Feed Oats by the use of a metal sieve perforated with equilateral triangular perforations the inscribed circles of which are 1/4 inch in diameter.

Other grains.—Other grains shall include wheat, rye, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of

kernels of cultivated oats, wild oats, or other grains, which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

SEAL

H. A. WALLACE, Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR RYE

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for rye, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for rye, and any amendments thereto, as previously promulgated under said act:

OFFICAL GRAIN STANDARDS OF THE UNITED STATES FOR RYE 7

For the purposes of the official grain standards of the United States for rye: Rye.—Rye shall be any grain which, before the removal of dockage, consists of 50 percent or more of rye and not more than 10 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act.

Grades.—Rye shall be graded and designated according to the respective grade requirements of the numerical grades and sample grade of these standards, and according to the special grades when applicable.

⁷ The specifications of these standards shall not excuse failure to comply with the provisions of the Food

Rye: Grade requirements for rye

	Minimum test weight per bushel	Maximum limits of—			
Grade No.		Damaged kernels (rye and other grains)		Foreign material	
		Total	Heat-dam- aged	Total	Foreign matter other than wheat
1	the requi inclusive ture; or v or which any come or garlic; any one	rements of a ; or which co which contai is musty, or nercially obj or which con or more of t	ny of the gra ontains more ns inseparab sour, or heat ectionable fo atains a quan he grade req	Percent 3 6 10 10 ch does not des from No than 16 percle stones an ing, or hot; reign odor ex tity of smut uirements ce erwise of di	ent of mois- dor cinders; or which has cept of smut so great that annot be ap-

DOCKAGE

Dockage includes weed seeds, weed stems, chaff, straw, grain other than rye, sand, dirt, and any other foreign material, which can be removed readily from the rye by the use of appropriate sieves and cleaning devices; also undeveloped, shriveled, and small pieces of rye kernels which are removed in properly separating the foreign material, and which cannot be recovered by properly rescreening or

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage. The percentage of dockage so calculated, when equal to 1 percent or more, shall be stated in terms of whole percent, and when less than 1 percent shall not be stated. A fraction of a percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.

SPECIAL GRADES FOR RYE

TOUGH RYE

Definition.—Tough rye shall be rye which contains more than 14 percent, but

ore than 16 percent, of moisture.

Grades.—Tough rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough".

SMUTTY RYE (SEE AMENDMENTS, P. 32)

Definition.—Smutty rye shall be rye which has an unmistakable odor of smut. or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls of average size in 250 grams of rye.

Grades.—Smutty rye shall be graded and designated according to the grade

requirements of the standards applicable to such rye if it were not smutty; and

(1) In the case of smutty rye which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls but not in excess of a quantity equal to 30 balls of average size in 250 grams of rye, there shall be added to, and made a part of, the grade designation, the words "Light Smutty"; and

(2) In the case of smutty rye which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of rye, there shall be added to, and made a part of, the grade designation, the word "Smutty".

GARLICKY RYE

Definition.—Garlicky rye shall be rye which contains 2 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of rye.

Grades.—Garlicky rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not garlicky; and

(1) In the case of garlicky rye which contains 2 or more but not more than 6 green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of rye, there shall be added to, and made a part of, the grade designation, the words "Light Garlicky"; and

(2) In the case of garlicky rye which contains more than 6 green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of rye, there shall be added to, and made a part of, the grade designation, the word

"Garlicky

WEEVILY RYE

Definition.—Weevily rye shall be rye which is infested with live weevils or

other insects injurious to stored grain.

Grades.—Weevily rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily".

ERGOTY RYE

Definition.—Ergoty rye shall be rye which contains ergot in excess of 0.3

Grades.—Ergoty rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty".

DEFINITIONS

Basis of grade determinations.—Each determination of dockage, temperature, odor, garlic, and live weevils or other insects injurious to stored grain, shall be upon the basis of the grain as a whole. All other determinations shall be upon the basis of the grain when free from dockage.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method

which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter other than rye, which is not separated from the rye in the proper determination of dockage,

except that smut balls shall not be considered as foreign material.

Other grains.—Other grains shall include wheat, oats, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Damaged kernels.—Damaged kernels shall be kernels and pieces of kernels of rye and other grains which are heat damaged, sprouted, frosted, badly ground

damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of rye and other grains which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal

of the Department of Agriculture to be affixed, in the city of Washington, this the

31st day of March 1934.

[SEAL]

H. A. WALLACE, Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR GRAIN SORGHUMS

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, chap. 3, sec. 74), I, H. A. Wallace, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for grain sorghums, as hereinafter described, which shall become effective on the 1st day of September 1934, and shall thereupon supersede the official grain standards of the United States for grain sorghums, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR GRAIN SORGHUMS 8

For the purposes of the official grain standards of the United States for grain

sorghums:

Grain sorghums.—Grain sorghums shall be any grain which, before the removal of dockage, consists of 50 percent or more of grain sorghums and not more than 10 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act, and which, after the removal of dockage and of "cracked kernels, foreign material, and other grains", contains not more than 25 percent of nongrain sorghums.

not more than 25 percent of nongrain sorghums.

Classes.—Grain sorghums shall be divided into five classes as follows: Class I,
White Grain Sorghums; Class II, Yellow Grain Sorghums; Class III, Red Grain
Sorghums; Class IV, Brown Grain Sorghums; and Class V, Mixed Grain Sorghums;

ghums.

Grades.—Grain sorghums shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of their appropriate class or subclass, and according to the special grades when applicable.

WHITE GRAIN SORGHUMS (CLASS I)

This class shall include all varieties of white grain sorghums, and may include not more than 10 percent of grain sorghums of other colors. Colored spots upon kernels that are otherwise white shall not affect their classification as white. This class shall be divided into three subclasses as follows:

SUBCLASS (A) WHITE KAFIR

This subclass shall include grain sorghums of the white kafir type, including hegari, and may include not more than 10 percent of other white grain sorghums, grain sorghums of other colors, or nongrain sorghums of other colors, singly or in any combination.

SUBCLASS (B) WHITE DURRA

This subclass shall include grain sorghums of the white durra type, and may include not more than 10 percent of other white grain sorghums, grain sorghums of other colors, or nongrain sorghums of other colors, singly or in any combination.

SUBCLASS (C) WHITE GRAIN SORGHUMS

This subclass shall include all grain sorghums of the class White Grain Sorghums not coming within the classification for subclass (a) White Kafir, or subclass (b) White Durra.

YELLOW GRAIN SORGHUMS (CLASS II)

This class shall include all varieties of yellow and salmon-pink grain sorghums, and may include not more than 10 percent of grain sorghums of other colors. This class shall be divided into two subclasses as follows:

SUBCLASS (A) YELLOW MILO

This subclass shall include grain sorghums of the yellow milo type, and may include not more than 10 percent of other yellow grain sorghums, grain sorghums of other colors, or nongrain sorghums of other colors, singly or in any combination.

⁸ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

SUBCLASS (B) YELLOW GRAIN SORGHUMS

This subclass shall include all grain sorghums of the class Yellow Grain Sorghums not coming within the classification for subclass (a) Yellow Milo.

RED GRAIN SORGHUMS (CLASS III)

This class shall include all varieties of red grain sorghums, and may include not more than 10 percent of grain sorghums of other colors. This class shall be divided into two subclasses as follows:

SUBCLASS (A) RED KAFIR

This subclass shall include grain sorghums of the red kafir type and may include not more than 10 percent of other red grain sorghums, grain sorghums of other colors, or nongrain sorghums of other colors, singly or in any combination.

SUBCLASS (B) RED GRAIN SORGHUMS

This subclass shall include all grain sorghums of the class Red Grain Sorghums not coming within the classification for subclass (a) Red Kafir.

BROWN GRAIN SORGHUMS (CLASS IV)

This class shall include all varieties of brown grain sorghums, and may include not more than 10 percent of grain sorghums of other colors.

Grain Sorghums: Grade requirements for grain sorghums

		Maximum limits of—				
Grade No.	Minimum test weight per bushel	Moisture	Damaged kernels (grain sorghums, nongrain sorghums, and other grains)		Nongrain sorghums	Total cracked kernels, foreign ma-
			Total	Heat- damaged		terial, and other grains
1	do not co No. 4, in or which weathered	Percent 14 15 16 18 de shall inclume within the clusive; or are musty, d; or which smut; or wh	ne requireme which conta or sour, or have any con	nts of any of in inseparable heating, or h nmercially o	the grades fi le stones and not; or which bjectionable	rom No. 1 to d/or cinders; th are badly foreign odor

MIXED GRAIN SORGHUMS (CLASS V)

This class shall include all mixtures of grain sorghums not provided for in the

classes from I to IV, inclusive.

Grade requirements and designations.—The grade designation for Mixed Grain Sorghums shall include, successively, in the order named: (1) The number of the grade or the words "Sample grade", as the case may be; (2) the words "Mixed Grain Sorghums"; (3) the name and the approximate percentage of each class of grain sorghums which constitutes 10 percent or more of the mixture, in the order of its predominance, but if only one class exceeds 10 percent of the mixture, the name and approximate percentage of that class shall be included in the grade designation, followed by the name and approximate percentage of at least one other class. In those cases where Mixed Grain Sorghums consist of 70 percent or more of grain sorghums of the types white kafir, white durra, yellow milo, or red kafir, singly or combined, and not more than 10 percent of brown grain sorghums, the word "Mixed" shall be substituted for the words "Mixed Grain Sorghums", and the name of the appropriate subclass or subclasses for such type or types, as the case may be, shall be substituted for the class names, in the grade designation.

DOCKAGE

Dockage includes sand, dirt, finely broken kernels, weed seeds, and other foreign material, which can be removed readily from the grain sorghums by means of a metal sieve perforated with round holes 2½/64 inch in diameter. The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage.

Dockage shall be stated in terms of half percent, whole percent, or whole and half percent, as the case may be. A fraction of a half percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the

grade designation.

SPECIAL GRADES FOR GRAIN SORGHUMS

BRIGHT GRAIN SORGHUMS

Definition .- Bright grain sorghums shall be grain sorghums, of any class or

subclass, which have good, natural color.

Grades.—Bright grain sorghums shall be graded and designated according to the grade requirements of the standards applicable to such grain sorghums if they were not bright, and there shall be added to, and made a part of, the grade designation, preceding the name of the class or subclass, the word "Bright."

DISCOLORED GRAIN SORGHUMS

Definition.—Discolored grain sorghums shall be grain sorghums of any class or

subclass which are discolored, but which are not badly weathered.

Grades.—Discolored grain sorghums shall be graded and designated according to the grade requirements of the standards applicable to such grain sorghums if they were not discolored, and there shall be added to, and made a part of, the grade designation, the word "Discolored."

WEEVILY GRAIN SORGHUMS

Definition.—Weevily grain sorghums shall be grain sorghums which are infested

with live weevils or other insects injurious to stored grain.

Grades.—Weevily grain sorghums shall be graded and designated according to the grade requirements of the standards applicable to such grain sorghums if they were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

SMUTTY GRAIN SORGHUMS

Definition.—Smutty grain sorghums shall be grain sorghums which have the kernels covered with smut spores, or which contain a quantity of smut masses in

excess of a quantity equal to 10 masses in 50 grams of grain sorghums.

Grades.—Smutty grain sorghums shall be graded and designated according to the grade requirements of the standards applicable to such grain sorghums if they were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

DEFINITIONS

Basis of grade determinations.—Each determination of class, subclass, nongrain sorghums, total damage, heat damage, and inseparable stones and cinders, shall be upon the basis of the grain when free from dockage and when free from "cracked kernels, foreign material, and other grains."

All other determinations shall be upon the basis of the lot of grain as a whole. Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or that ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Other grains.—Other grains shall include wheat, rye, oats, corn, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Nongrain sorghums.-Nongrain sorghums shall include broomcorn, Sudan

grass, Johnson grass, and cane seed.

Cracked kernels, foreign material, and other grains.—Cracked kernels, foreign material, and other grains, shall include kernels and pieces of kernels of grain sorghums, and all other matter except dockage that will pass through a metal sieve perforated with equilateral triangular perforations the inscribed circles of which are 1/4 inch in diameter; also other grains and all other matter except grain sorghums and nongrain sorghums remaining on such sieve after screening.

sorghums and nongrain sorghums remaining on such sieve after screening.

Damaged kernels.—Damaged kernels shall be kernels and pieces of kernels of grain sorghums, nongrain sorghums, and other grains which are heat damaged, sprouted, frosted, badly ground damaged, moldy, or otherwise materially

damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of grain sorghums, nongrain sorghums, and other grains which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE, Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR FLAXSEED

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. Wallace, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for flaxseed, as hereinafter described, which shall become effective on the 1st day of August 1934:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR FLAXSEED 9

For the purposes of the official grain standards of the United States for flaxseed: Flaxseed.—Flaxseed shall be any grain which, before the removal of dockage, consists of 50 percent or more of flaxseed and not more than 20 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act.

Grades.—Flaxseed shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of these standards.

Flaxseed: Grade requirements for flaxseed

Grade No.	Minimum test weight per bushel	Maximum limits of damaged flaxseed
1 2 Sample grade	47 pounds Sample grade shall include flaxseed w ments of either of the grades No. 1 or N seed; or which contains more than 11	30 percent. hich does not come within the require- fo. 2; or which contains fire-damaged flax- percent of moisture; or which is musty, is any commercially objectionable foreign

DOCKAGE

Dockage shall include all matter other than flaxseed which is contained in the lot of grain as a whole; also undeveloped, shriveled, and small pieces of flaxseed removed with the dockage and which cannot be recovered by properly rescreening or recleaning.

⁹ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the flaxseed including the dockage. The percentage of dockage so calculated, when equal to one-half percent or more, shall be stated in terms of half percent, whole percent, or whole and half percent, as the case may be. A fraction of a half percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.

DEFINITIONS

Basis of grade determinations.—Each determination of test weight, moisture, damage, and "fire damaged", shall be upon the basis of the grain after the removal of that part of the dockage which can be removed readily by the use of appropriate sieves and cleaning devices. All other determinations shall be upon the basis of the grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Damaged flaxseed.—Damaged flaxseed shall be seeds and pieces of seeds of

flaxseed which are heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE, Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR MIXED GRAIN

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. Wallace, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for Mixed Grain, as hereinafter described, which shall become effective on the 2d day of July 1934:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR MIXED GRAIN 10

For the purposes of the official grain standards of the United States for Mixed Grain:

Definition.—Mixed Grain shall be any mixture of those grains for which standards have been or hereafter may be established under the provisions of the United States Grain Standards Act, that does not come within the requirements of any of the standards for such grains, and that does not contain more than 50 percent

of foreign material. Wild oats in Mixed Grain shall be classed as a grain.

Grades.—Mixed Grain shall be graded and designated either as "Mixed Grain" or as "Sample grade Mixed Grain", and according to the special grades when

applicable.

GRADE REQUIREMENTS

Mixed Grain (Grade).—The grade "Mixed Grain" shall include all mixed grain which does not come within the specifications for Sample grade Mixed Grain.

Sample grade Mixed Grain.—The grade "Sample grade Mixed Grain" shall include all mixed grain which contains more than 16 percent of moisture, or more

¹⁰ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

than 15 percent of damaged kernels, or more than 3 percent of heat-damaged kernels; or which is musty, or sour, or heating, or hot; or which contains stones and/or cinders; or which has any commercially objectionable foreign odor except of smut or garlic; or which has a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.

GRADE DESIGNATIONS

The grade designation for Mixed Grain shall include, in the order named:
(1) The words "Mixed Grain", or the words "Sample grade Mixed Grain",

as the case may be;
(2) The name and percentage of each kind of grain, including wild oats, which
the mixture in the order of predominance; and

constitutes 10 percent or more of the mixture, in the order of predominance; and
(3) When applicable, the words "Other Grains", followed by a statement of
the percentage of the combined quantity of those kinds of grain, including wild oats, each of which is present in a quantity less than 10 percent; and
(4) The words "Foreign Material", together with a statement of the percent-

age thereof.

All percentage statements shall be in terms of whole percent. A fraction of a percent shall be disregarded.

SPECIAL GRADES FOR MIXED GRAIN

TOUGH MIXED GRAIN

Definition.—Tough Mixed Grain shall be mixed grain which contains more

than 14.5 percent but not more than 16 percent of moisture.

Grades.—Tough Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough".

SMUTTY MIXED GRAIN (SEE AMENDMENT P. 33)

Definition.—Smutty Mixed Grain shall be (a) mixed grain in which wheat or rye predominates, and which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls of average size in 250 grams of mixed grain, (b) mixed grain in which oats predominate, and which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of mixed grain, or (c) any mixed grain which has the kernels covered with smut spores, or which contains smut masses in excess of 0.2

Grades.—Smutty Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

ERGOTY MIXED GRAIN

Definition.—Ergoty Mixed Grain shall be mixed grain which contains ergot in

excess of 0.3 percent.

Grades.—Ergoty Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

GARLICKY MIXED GRAIN

Definition.—Garlicky Mixed Grain shall be (a) mixed grain in which wheat or rye predominates, and which contains 2 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of mixed grain; or (b) mixed grain in which oats or barley predominates, and which contains 4 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 500 grams of mixed grain.

Grades.—Garlicky Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not garlicky, and there shall be added to, and made a part of, the grade designa-

tion, the word "Garlicky."

WEEVILY MIXED GRAIN

Definition.—Weevily Mixed Grain shall be mixed grain which is infested with

live weevils or other insects injurious to stored grain.

Grades.—Weevily Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

BLIGHTED MIXED GRAIN

Definition.—Blighted Mixed Grain shall be all mixed grain in which barley predominates, and which, as a whole, contains more than 4 percent of barley damaged or materially discolored by blight and/or mold.

Grades.—Blighted Mixed Grain shall be graded and designated according to

the grade requirements of the standards applicable to such mixed grain if it were not blighted, and there shall be added to, and made a part of, the grade designation, the word "Blighted."

TREATED MIXED GRAIN

Definition.—Treated Mixed Grain shall be mixed grain which has been scoured, limed, washed, sulphured, or treated in such a manner that its true quality is not reflected by either the numerical grade or the Sample grade designation, alone.

Grades.—Treated Mixed Grain shall be graded and designated according to the

grade requirements of the standards applicable to such mixed grain if it were not treated, and there shall be added to, and made a part of, the grade designation, a statement indicating the kind of treatment.

DEFINITIONS

Basis of grade determinations.—All determinations shall be on the basis of the grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages

ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and method of use thereof described in Bulletin No. 1375, issued by the United States Department of Agriculture, or that ascertained by any device and method which give equivalent results in the determination of moisture. In the determination of moisture by the method described in Department Bulletin No. 1375, the heating element shall be cut off when the thermometer shows a

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter other than grains

for which standards have been established under the provisions of the United States Grain Standards Act, but shall not include wild oats.

Damaged kernels.—Damaged kernels shall be all kernels and pieces of kernels of those grains for which standards have been established under the provisions of the United States Grain Standards Act, which are heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernel of those grains for which standards have been established under the provisions of the United States Grain Standards Act, which have been materially discolored and damaged by external heat or as a result of heating caused by

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE, Secretary of Agriculture.

AMENDMENTS TO GRADES FOR SMUTTY WHEAT, SMUTTY RYE, AND SMUTTY MIXED GRAIN

(Effective July 25, 1934)

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. Wallace, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, the following change, which shall become effective on the 25th day of July 1934, in the official grain standards of the United States for wheat as heretofore promulgated by the Secretary of Agriculture.

Amend the Special Grades for Smutty Wheat to read as follows:

SMUTTY WHEAT

Definition.—Smutty wheat shall be wheat which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 14 balls of average size in 250 grams of wheat.

Smutty wheat shall be graded and designated according to the method de-

scribed either in paragraph (a) or paragraph (b) of this section.
(a) Smut dockage.—Before the determination of smut dockage as provided in this paragraph, the wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not smutty. The smut shall be removed by scouring and the loss in weight of the wheat caused by the removal of the smut shall be calculated in terms of percentage based on the total weight of the grain when free from dockage. The percentage so calculated shall be stated in terms of half percent, whole percent, or whole and half percent, as the case may be. A fraction of a half percent shall be disregarded. The percentage of the smut dockage, so calculated and stated, shall be added to the grade designation, preceding the statement of dockage, if any.

(b) "Light Smutty" and "Smutty."—Smutty wheat shall be graded and

designated according to the grade requirements of the standards applicable to

such wheat if it were not smutty; and

(1) In the case of smutty wheat which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 14 balls but not in excess of a quantity equal to 30 balls of average size in 250 grams of wheat, there shall be added to, and made a part of, the grade designation, the words "Light Smutty"; and

(2) In the case of smutty wheat which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of wheat, there shall be added to, and made a part of, the grade designation,

the word "Smutty."

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 26th day of April 1934.

[SEAL.]

H. A. WALLACE, Secretary of Agriculture.

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. Wallace, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, the following change, which shall become effective on the 25th day of July 1934, in the official grain standards of the United States for rye as heretofore promulgated by the Secretary of Agriculture.

Amend the Special Grades for Smutty Rye to read as follows:

SMUTTY RYE

Definition.—Smutty rye shall be rye which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 14 balls of average size in 250 grams of rye.

Grades.—Smutty rye shall be graded and designated according to the grade

requirements of the standards applicable to such rye if it were not smutty; and

(1) In the case of smutty rye which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 14 balls but not in excess of a quantity equal to 30 balls of average size in 250 grams of rye, there shall be added to, and made a part of, the grade designation, the words "Light Smutty"; and

(2) In the case of smutty rye which contains balls, portions of balls, or spores,

of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of rye, there shall be added to, and made a part of, the grade designation, the word

Smutty.'

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 26th day of April 1934.

[SEAL.]

H. A. WALLACE, Secretary of Agriculture.

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, the following change, which shall become effective on the 25th day of July 1934, in the official grain standards of the United States for mixed grain as heretofore promulgated by the Secretary of Agriculture.

Amend the Special Grades for Smutty Mixed Grain to read as follows:

SMUTTY MIXED GRAIN

Definition.—Smutty Mixed Grain shall be (a) mixed grain in which wheat or rye predominates, and which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 14 balls of average size in 250 grams of mixed grain, (b) mixed grain in which oats predominate, and which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of mixed grain, or (c) any mixed grain which has the kernels covered with smut spores, or which contains smut masses in excess of 0.2 percent.

Grades.—Smutty Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not smutty, and there shall be added to, and made a part of, the grade designa-

tion, the word "Smutty."

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 26th day of April 1934.

[SEAL.]

H. A. WALLACE, Secretary of Agriculture.

